

Digitized by the Internet Archive in 2013

SEPTEMBER 1907 VOL.V.

NO.I. IGER THE





THE SAN FRANCISCO CALL

Is the Paper of To-day
In San Francisco

A Newspaper All the Time for All the People

The Call's Only Interest Is the People's Interest

THE TIGER

THE CALIFORNIA SCHOOL

of

MECHANICAL ARTS

INDEX

	Page
LITERARY DEPARTMENT	- 3
A DESERT SKIRMISH (Robert Ackerman, '10)	3
AURORA BOREALIS—continued (R. Mcrser, '09)	- 6
THE BLOODY CROSS OF LOS MEGANOS (Freeman Smith, '09)	8
LARRY McCRAE (Ashleigh B. Simpson, '09)	- 10
THE HOLD-UP (Victor Lenzen, '09)	12
EXTRACT FROM THE DIARY OF A TURKEY (Carl Myer, '11) -	- 13
THE FOG (Ethel Atkinson, '08)	15
UNCLE HIRAM VIEWS A FOOTBALL GAME (D. St. John, '09)	- 15
RELATION OF MECHANICAL AND ACADEMIC WORK	17
(S. Atwood McKeehan, '09)	
A TRIP DOWN A FLUME (Ellsworth Thurston, '11)	- 18
FOOTBALL AS IT IS PLAYED (Leigh Rodgers, '08)	18
AN EXCITING STAGE RIDE (Allan W. Thornton, '10)	- 21
DAYBREAK (William Jaenicke, '08)	21
THE MAKING OF A SUNDAY NEWSPAPER (John Raber, 10)	- 22
TECHNICAL DEPARTMENT—	
THE EVOLUTION OF THE RAILWAY OF THE FUTURE (Robert Hunt, '09) -	24
AN ATTEMPT WHICH IS BEING MADE IN SAN FRANCISCO TO SOLVE AERIAI NAVIGATION (A. Wills, '09)	_ - 25
EDITORIALS	26
EXCHANGES	- 28
SCHOOL NOTES	30
ALUMNI	- 32
FROM STANFORD	33
SHOP NOTES	- 34
ATHLETICS	- 3 4 37
INTERCLASS FIELD DAY	- 39
	- 39 39
S. F. L. FIELD DAY BERKELEY VS. LICK	- 40
GIRLS' ATHLETICS	
	41
JOSHES	- 42

The Tiger

CALIFORNIA SCHOOL OF MECHANICAL ARTS

VOL. V

SEPTEMBER, 1907

NO. I



A Desert Skirmish

On a certain evening in the summer of the year 1870 a rider might have been seen wending his weary way along an Arizona desert. The appearance of the stranger seemed to be that of a person much used to riding. His leather chaps, blue cotton shirt and broad-brimmed sombrero were white with dust, while his coal black horse was in very much the same condition. He was a young man, not over twenty-one or twenty-two, and his tanned countenance bespoke a man much used to dwelling in the open.

At the time we first see him, he seemed to be engaged in talking to his horse.

"Come, Bill, you ole pie-biter," he was saying, "it's just a little farther to the Springs, and there you shall have your oats and a good night's rest."

But Bill evidently was not much encouraged by this assurance, for he never altered his gait and even refused to acknowledge his master's speech except by a slight pricking of his ears. But as his master said, they soon reached what was known as the Springs, a place which consisted of a spring, a couple of trees, two or three deserted, half-burned huts, whose inhabitants had been massacred by Indians some years before. Here Jack Diamond, for so we shall call our young friend, dismounted and carefully removed his traps and saddle from the horse. Then after satisfying himself with a frugal meal, taking a drink and shaking out some oats for his animal (a sort of meal I should say), he lay down and was soon lost here in slumber. He had

not been sleeping very long, however, when his horse began to sniff the air uneasily, and finally ended by giving a frightened neigh. But to no effect. His master merely rolled over on the other side and continued to sleep soundly.

Again the alarmed animal neighed, and this effort met with success, for his master jumped up, on the alert in an instant. He knew that Bill only acted thus when some danger was by.

"What is it, ole man?" he queried softly. But Bill stood perfectly rigid, with his nose to the wind. Jack Diamond went and stood by the horse. It was a beautiful night; the moon lighted the desert so that a man might see clearly as far as the eye could travel. Jack Diamond took in all the surrounding country at a glance. Hovering on the distant horizon were scattered a score of dark figures, which stood out strongly against the silvery sky and the glistening sand.

"Apaches skipped the reservation and out on the warpath," he conjectured half alond.

"Bill, you ole pie-biter, it's up to us to clear out and look for a good place to fight. We're four days' journey from help both ways, and if we don't find a good place soon, by G—, those devils won't give us a chance to. I know a place a day's ride from here where we could put up a dandy fight and sell our lives dear if we can only reach it. Do you think you could make fifty miles tomorrow, ole boy?' he continued, patting the horse's nose.

Bill only stuck his cold nose in his master's face and pranced a bit to show his willingness to start at once and do his best.

Jack Diamond at once set about packing his things. He had very little to pack, his small luggage being a blanket, a pair of saddle-bags containing a few canned goods and some oats for his horse, a cou-

ple of Colt's revolvers in holsters and a 30 Winchester over the saddle bow.

His small preparations being made, he mounted and rode off.

The sun was very hot, unusually hot, but Bill did his best, and Jack Diamond had great hopes of reaching his destination in time to fight. All day long the score of black objects drew nearer and nearer, until Diamond's conjecture was proven true by their war whoops. These set Bill wild with fear. He tried to break loose from his master's control, but Diamond kept a tight rein and spoke in a firm but gentle voice from time to time.

"Whoa, now, Bill; easy, boy," he would whisper in the horse's ear; "you'll need all that later on. Save yourself, boy; save yourself."

Every now and then Diamond would cast an uneasy glance at the figures, ever drawing nearer, and nervously finger his revolver.

Toward nightfall the pair reached their destination, a mesa which might be approached from the sandy desert below by either a rough road on one side of it or a natural ledge known only to Jack Diamond (at least so he thought). The plain, to the best of his knowledge, was totally uninhabited. Imagine his surprise, therefore, when on reaching the top he saw in one corner a small ranch and a rough ranch-house. Some horse-thieves' den, he thought to himself, and dismounting from Bill, walked cautiously toward the house, revolver in hand.

A man opened the door at his knock a tall, good-looking man of fifty years or thereabouts.

"Won't you walk in?" he queried.
"My wife and daughter are always glad
to receive travelers at our little home
here. One hears so seldom from the world
in a secluded spot like this."

"Good God, man! Have you a wife and daughter here now?" said Diamond.

"You've got to clear out of here as quick as you can. Apaches have been on my trail for a day, and this was to have been my stand. How many horses have you got? What, only one and a mule? Here, you take mine. He has taken me through thick and thin, and, by George, he can go. Be quick—you've no time to lose. Take the ledge, and I'll hold the trail as long as I can. Good-bye, and good luck to you."

"God bless you, young man," said the man. "I'll go in and tell the women. If it wasn't for them I'd stay and fight it out with you. But, if you come out alive, my name's John Borman, and I've a home in Flagstaff, where you're welcome if you ever do pull through."

With these few words he walked into the house and left Diamond and Bill alone.

As soon as he was well out of sight Diamond turned on Bill.

"Good-bye, ole pie-biter," he said, and his voice was choked with tears. "Good-bye; we've been through thick and thin together, and now it does seem hard to part. But then it's the only way, ole man, it's the only way,"

Again he felt, as on the previous evening, that cold, soft nose in his face, and this seemed somehow to make it doubly hard for him to part with the horse, and he broke down and wept like a child, hugging his horse's head to his bosom.

The man came to the door of the house and stood watching the pair for a second or two. Then he stepped out and said:

"My friend, I know just how you feel about your horse, and we'll be very kind to him for your sake, and if you do return alive I will consider it the greatest favor if you will call upon me for him, or anything else it is in my power to grant you. Good-bye, my friend, and may God bless and preserve you on this awful day."

"Good-bye," said Diamond, careful not to show any feeling.

Just then from below came a triumphaut war whoop. Jack Diamond grabbed his gun and pistol, and, yelling for them to hurry, he started for a rock where he could command a bend in the road up, from which he could pick off the Indians as they endeavored to pass up in single file.

First, the Indians approached recklessly, thinking they had only one man to deal with.

"Bang, bang, bang!" spoke his rovolver, and three Indians lay dead, blocking the road at the bend. After that the others came more cautionsly. Once a warrior had almost reached the top of the steep road when Diamond's fatal rifle rang his death knell.

Then, encouraged by the valor of their dead comrade, the Indians began rushing up the precipice-like road in a body, keeping up a sharp fire the while. Diamond was forced to stand up and to shoot and to fire much more rapidly than was good for his supply of ammunition. At last, when his situation was desperate, having only five cartridges left, he recklessly walked to the edge of the cliff and coolly drew a bead on the chief of the band.

"Bang, bang, bang, bang!" rang four rifles simultaneously, and the chief fell dead with a bullet in his heart, while poor Diamond had one of the other three lodged in his breast and lay quiet and seemingly dead on the ground where he had fallen.

With a loud, triumphant whoop the Indians were up the cliff and racing toward the house. Just then a scout, with cries of alarm, came running up the hill and pointed excitedly to an ever-increasing cloud of dust on the desert. [No second warning was needed.] The Indians every man of them, knew that this dust concealed the blue coats of United States

cavalry, and, grabbing their horses, scattered to all parts of the desert, without even taking time to sack the house.

About half an hour later Jack Diamond awoke. For some little time after recoving consciousness he was in a sort of stupor. Gradually, however, he became aware of a low murmuring around him. Slowly he opened his eyes. Oh, what a joyful sight met their view! Instead of the grinning savage bending over him, scalp-knife in hand, whom he had half expected to see, the blue coat of a U. S.

cavalry officer met his wondering gaze!

"Oh, yes," he heard the man say, and his voice sounded weak and infinitely distant, "he'll live to get back to this horse he's been talking about if we can only get him to your home in Flagstaff soon enough. Lucky thing for him you met us, though, or those hellhounds would have done for him. But, as I said, we'll pull him through all right."

"Thank God," ejaculated the voice of John Borman.

And Jack Diamond heard no more.

ROBERT ACKERMAN, '10.

Aurora Borealis

Ed and Steve Norton were considered cranks on all things mechanical, yet were conceded to be fine mechanics. Ed for the past two years had been devoting his entire time to the study of aeroplanes. As a result of this he had completed a good model of the double-deck type. Unlike others, it was not in the least flimsy or weak, yet not overburdened with useless weight. Steve had been working on a static machine for several months, developing a very powerful one.

Although the brothers experimented along widely different lines, they worked in the same little shop with perfect harmony. One Saturday they were busy, each on his own experiments, Ed testing the new gasoline motor for the aeroplane and Steve studying static discharges.

Ed had completed his engine tests, the shop was filled with the aerid odor of the exhaust. Suddenly it seemed as if this was changed to the fresher odor of gasoline. Where could it come from? Not from the tank, as it was situated outside the shop. The odor seemed strongest near the static machine. They snuffed about and set the machine in motion again, and sure enough they found that the odor came from the sparks. When the opening was greater than a spark could jump, a violet light was plainly visible between the poles.

Ed's aeroplane was forgotten, for here at last was a subject of common concern. Was nature only playing with them, or did they have within their grasp an unknown principle which might prove of value to the world? They had apparently decomposed the exhaust of a gasoline engine to its original components.

The engine was started to obtain more exhaust gases in a stronger form. This was done by the use of glass cylinders, open at both ends. The cylinders were then placed in the static discharge. Al-

most instantly minute drops of gasoline collected in the glass. Here was a discovery indeed!

After that eventful day it seemed as if the boys lived in their little shop. It was not an uncommon thing to hear someone in the village remark: "Those Norton boys are getting worse than ever. It's a wonder their folks don't call them down." This was probably the result of their inability to get in the shop, for now they were turned away by locked doors and barred windows.

The brothers experimented for some time to find a way to make use of their discovery. Although failure often stared them in the face, they persevered.

Several months later a rich uncle, Logan Watson, paid them a visit. While prowling around one afternoon he found the shop door unbolted and walked silently in. His nephews were so greatly absorbed in their work that they did not notice his intrusion. When at last they caught sight of him he had gleaned the main facts of their discovery.

That night the boys had a long talk with their uncle, who, they found, was greatly interested in polar exploration, having spent a small fortune on his fad. He explained that he wished to use their discovery.

Upon inquiries as to how, he began:

"You have decomposed the exhaust of a gasoline engine back to gasoline and air by static discharge, and for a long time scientists have told us that the 'Aurora Borealis' is nothing but a static discharge between two oppositely charged strata of air. But to get to my plan. Ed has a most successful aeroplane. In fact, I came here to inspect it, with a view of using it for polar work. The upper deck will serve as a static collector for one pole, the lower deck will serve the same purpose for the opposite pole. By means of this we will collect the opposite static charges.

to be discharged in a tank which shall be connected to the exhaust like a muffler. As the gasoline condenses it will be drawn from the bottom and used over and over again."

"But what is your idea in that?" asked Steve. "Gasoline is not so valuable, is it? Ed has used enough to go to the Pole twice over."

No, I am not considering value, but weight. We shall have to travel at least a thousand miles, and weight is a most important factor in aerial navigation.

Three days later Ed and Steve, accompanied by their Uncle Logan left for Boston to superintend the construction of the aeroplane, which was to be of immense dimensions. The separator upon which so much depended was to be built in a famous electrical works.

Logan Watson had had a steamer under construction for the past year which was built expressly for polar work and was said by experts to be the finest example of polar ship yet turned out.

The plans for an attack on the undefeated North Pole were now complete. The steamer, which had so fitly been christened the Aurora, was to leave in the spring with the areoplane and then slowly work its way north until it, would be impossible to advance further. The aeroplane would then be tested and any small adjustments that might be necessary would be made. The dash for the pole would then be attempted, as well as exploration in that mysterious region.

Bright and early on the morning of May 1, Ed and Steve, with their Uncle Logan, stood on the bridge of the Aurora watching the rapidly gathering multitude on the docks all crowding for a glimpse of the adventurers. Newspaper men were trying to outdo each other on snapshots, while reporters were fighting to interview various members of the crew, from captain to coalpasser.

"If messages wishing us success count for anything, we will get to the pole," remarked Ed. "I heard one of the officers say there was enough telegrams to stoke the boilers a week."

Ed and Steve were overjoyed now that

the start on the trip was really being made.

Slowly the Aurora left the dock and the cheering crowd behind while she slowly dropped down the harbor saluted by the whistles of passing craft.

R. Morser, '09.

(To be continued.)

The Bloody Cross of Los Meganos

Have you ever seen the Bloody Cross of Los Meganos?

Perhaps not, but perchance you have, so this story will not interest you. For once a traveler lays his eyes on that crimson emblem, painted high on the granite cliff, his curiosity leads him to the nearest source of information concerning the mystery.

Why does it retain its brilliancy, never becoming dim and faded? That's the mystery.

How came it there anyway? That is essentially the question that most interests the observer.

It is a beautiful story of the early Mexican days, and the old padre loved to repeat it over and over to the early white men of the "Grants."

It was back in those early days when railroads were unheard of and the fractious cayuse with his sleepier cousin, the tiny burro, afforded the only means of traversing the great California grants.

The towns were merely a collection of low, dirty adobes clustered about the more spacious church of the padres.

Such a place was Los Meganos,

founded by Jose Arguello near the oak-shaded banks of Pico Creek.

Antonio, his brother, had settled just over the ridge on his grant of many acres, La Lauja.

Jose's domain soon swelled to a goodly settlement of industrious cattle raisers, peaceable and content in their new home. However, to Antonio's rancho came his adventurous rough friends, gamblers and rustlers, from Old Mexico.

Often clashes occurred, Antonio's "rustlers" constantly invading his brother's domains and driving off many fine animals.

Thus affairs worried along for many years, Antonio harassing his brother's domain merely to satisfy the love of danger and chance his own men displayed.

As the brothers grew old their rivalry ceased on the plains and burst into a new channel through the chivalrous son of Antonio.

Juanita Arguello was by far the most beautiful girl for many miles around, and the ardent Miguel masked not his admiration of her. But few were the chances he received to plead with his love in the true way of his ancestors, for each inhabitant of Los Meganos considered a member of Antonio's flock his natural enemy, and equally the fair Juanita their own to guard.

Factions quarreled, knives flashed at home with frequency, for Juanita favored none, yet encouraged all with those covert smiles of which she was mistress.

The twilight slowly filtered through the huge over-spreading oak and silvery notes floated out, mingled with softly hummed tunes, into the still air on this fatal eve. Only the half mournful good night Cooo! Coo-oo! of the nesting dove broke the outer silence.

Juanita quieted the soft guitar and laid it aside. She grew restless and sighed, for the season was now late and Jose with his "rounders" had not returned from the fall roundup.

A step on the walk startled her from her meditation and her face beamed with a happy smile. "Oh, father, is it you at last!" She stopped with a start and stood with outstretched hand.

"No! not your father, but one who loves you, Juanita, as much. Yes, even more."

"Senor Miguel, you have no right to come here, and you must leave immediately," and the frown on her brow interpreted every word she spoke.

"I rode across by the 'Pass' to see you alone, and you——'" She stopped him with a curt good-night and turned to the house.

With a step Miguel was at her side, and gathering her in his arms hurried to his panting horse near the gate.

The back road led direct to the "Pass," and soon the pride of Jose's home and village unwillingly entered a valley she never before had seen, and now as a prisoner of the hated Miguel of La Lauja.

Los Meganos slept on in silence until

the deep shades of evening were startled by a distant rattle of revolver shots. Confusion and rejoicing reigned together. Women and children hurried about preparing eatables, drink and general good cheer for the returning vaqueros.

A gay welcome it was, and the tired riders eagerly joined in the revelry, save one.

From the crowd one face was missing. Jose waited not to enquire of the rejoicing crowd, but hurried to his home, his heart beating fast with sudden fear.

The gate stood open, her guitar lay by the hammock in the yard. Hurriedly he ran from room to room throughout the house calling his daughter's name again and again. With increasing anxiety he searched the yard over, and through the stables, then through the yard again. Search seemed in vain.

Frantic with fear he started for the gate. On the walk lay a broken string of beads, Juanita's, and beside them a silver coin tied to a broken buckskin string. Jose gathered up the clew with a look of satisfaction, then a scowl spread over his swarthy face. Only one man in all the country about wore the Mexican peso as a lavish adornment on his sombrero—Mignel!

Drinking and laughter ceased as Jose burst upon the boisterous crowd. Few words told the story and shouts of vengeance filled the air. Horses were snatched from their half-eaten meal, revolvers were examined, knives unsheathed, and in a moment they were off for the "Pass."

Miguel's friends stood waiting for the trouble they knew must come, and when Jose's men charged up the stream they did all in their power to drive them off, but the angry supporters of Jose were not to be stopped until their idolized queen was found.

Revolvers cracked, knives flashed once

and then became dull with blood of the fray. Horses reared and plunged, the thud of a well-handled club now and then added to the horror, but nothing could stop the maddened people of Los Meganos until the house of Miguel Arguello was reached.

In the rear the struggle still continued, but Jose sprang from his horse and to the door of Antonio's abode. A cry of despair greeted him, then a dull crash on the earthen floor as the door gave way to his frantic charge.

The beautiful Juanita lay with her hands clasped to her blood stained bosom. Miguel, standing with the crimson knife in his hand, turned it to his own heart, but too late, the clotted blade of Jose had started on its mission of vengeance. With

a gasp Miguel clasped at the deadly hilt and sank to the floor.

Antonio, with most of his men, lay at the "Pass" and La Lauja seemed owner-less. The heat of revenge was far from spent, though, for all this. Gathering the bodies the warm blood was drawn and then to the cave they were taken and buried, while in savage mockery the crimson cross was painted high on the cliff above.

Slowly they turned toward home and families, all but Jose. He rode back to the hut where lay his only daughter, his whole life. Kneeling he carressed her, then rose, noticing not Miguel. And once more he mounted faithful old "Manuel" and rode slowly with bowed head out across the rancho to—well, toward Old Mexico.

Freeman Smith, '09.

Larry McCrae

"The papers were full of it at the time; you read the accounts, no doubt?"

I replied that I had up to a certain extent.

"At all events, you know how Harry McCrae escaped Folsom last autumn by landing on the guard; how Johnny Harris, Sparta Lloyd and myself were sent out to nail him, and that we nailed him—dead, of course."

Here Vie Rallen paused and stared seriously at a point midway between the door and the window, as far as I could make out. What he saw was of no conse-

quence. What was in his mind's eye you'll soon know.

I had known Vic Rallen for a number of years—old school pal, in fact. He was a short, sturdy, grim little man, as hard as nails and as intent on his business as the devil. He had been connected with the Secret Service and several other government positions, consequently he was hauled out on the McCrae case.

McCrae was doing twenty years for bank robbery and attempted murder. He was a "jim dandy" criminal, regular fiend for deceiving his guards. Gained the friendship of one, cracked his skull and escaped, throwing everybody in the state into a panic. As a sure and last resource Rallen and his two colleagues, Harris and Lloyd, were set on McCrae's trail. So much for explanation.

·Rallen ceased wall-gazing and turned to me once more.

"You know just exactly how we got him?"

"No," I replied, "I am not familiar with the details."

"Well," said Rallen, "here it is. Crae broke loose about the 26th of Angust. The local force sent a posse of overgrown kids after him: they found his trail, chased him into the Sierras, fell shy a few men, and returned home. You see, Larry McCrae was a devil for sure: he sneaked back on his trail, and while the overgrown kids snored he picked a few from a safe distance and then beat it. The posse got mad, chased over wild in the middle of the night, running all kinds of chances of receiving a leaden forget-menot from Larry. They searched the brush and scaled the rocks, knew Larry was grinning at 'em from some point close by. Well, the same happened the next nightkind of nerve-racking, that sort of thing, so the kids gave it up and came home disgusted. That business gave the local force a black eye; they didn't want to give it up yet, so they called me in.

"Lord, McCrae was four days out by this time. Lloyd, Harris and myself stowed up our outfits and started on the trail. What a chance we had—three rifles, plenty of ammunition and grub, with lots of courage to boot. The second night out we camped quietly on the site where Larry had picked off some of the boys. Afraid? Not on your life. Larry was miles away in the hills by now. The next day we picked up his trail; we tramped all day, hoping to come close to him by night. He was only a few hours ahead of us now—we found a hot bed of

ashes which showed sure proof. We hadn't been particularly careful, you see, we thought Larry was farther ahead of us than he really was.

"When night came we topped a son-ofa-gun of a range to fall plunk into Larry's camp, nice bright little fire all aglow. We sneaked in close, but there was no Larry. we were fooled. He'd spotted us and slid. Kind of gave us the creeps; we knew that just a few hundred feet or so in the murk of those trees was a man with a 30-30 who was watching us and might get us. We turned into the safety of darkness none too quick; pht-whar-r-r-r went a bullet past Lloyd's ear. Holy smoke! That was a close one. We ran silent-like into the forest. What fools we were to let Larry spot us like that-lead us right into the light and make a pot-shot of it! Clever little game of his, all right.

"The next morning we determined to get Larry sure; this time we were cautious. spoke only at long intervals, and even then in low tones. Lord, but Larry could travel. We did not get anywhere near him that day. He must have moved while we slept. On the strength of his advance we dared to build a fire and make coffee. Blooming pot was steaming away when, by jinks, pht-whar-r-r-shot plumb through and through, she leaked coffee all over the fire. Sizzled and sputtered while our hair stood on end. Not a leaf moved. Maybe we did not all say our prayers. Larry had us sure; he was playing with us. Pht-whar-r-r. Poor old Lloyd rolled over with a grunt-last man hunt for him. Harris whipped his gun to his shoulder and fired at a moving vine. We did not stop for ceremonies over Lloyd, just jumped and ran. Strange thing Larry did not get us, but not a sound nor shot came after us.

"We picked up the trail again—it was Larry or us this time. We were going to avenge Lloyd's death. Grim, were we? Yes, and seared, too. Wandered along the range of Larry's trail. Huh! Followed and followed three days and then gave up when we ran into a deserted squatter's cabin. We had missed the trail. We knew Larry too well. He was not seeking the simple life. No use now, we turned toward home. Larry was free, as far as we cared. Two days more and we were back to Lloyd's body. Poor devil, we spent an hour or two over him to make up for our recent hurry. He's up there un-

der a big stone with moss on it, six feet under it. Harris was always a stickler for such things, fussy as an old woman. Well, we went another hundred yards or so with tears in our eyes for Lloyd and hell in our hearts for Larry. And there—well, there was Larry McCrae stiff and cold against a tree, his rifle cocked and clinched in his hands. Harris had hit him that time—hit him in the chest. Good shot, Harris, when he could not see the target."

Ashleigh B. Simpson, '09.

The Hold-Up

"Ten below and dropping slowly," spoke up a uniformed young man as he threw a few more pieces of wood into the stove of the C. P. R. R's station house. The relief crew of the delayed No. 10 worked their chairs close to the inviting fire, apparently forgetful of the long trip before them. They were swapping oldtime railroad varns and experiences to liven the dreary evening, and many thrilling tales of trainwreck and robbery were recited to the interested listeners. "Jack," the engineer, had just been telling how he had prevented a train robbery, when the gray-haired conductor spoke up that he had a varn which would beat that. Urged by the company he agreed to tell it, and they listened eagerly as he began.

It was in the fall of 18—. If you remember, that was the year of the panic, when hundreds of the banks throughout the country were being crowded to the wall. Those who were able were calling to their aid all the resources at their com-

mand, and in many cases frantically rushed the gold coin through from the money centers to the weak institutions. I hate to tell you how many times we had millions aboard of which no one but the engineer, my conductor and myself knew anything about.

At any rate, this night we left Cheyenne on time with a full load of passengers and \$500,000 in gold in the express car. You know the road as well as I do. Stretches of it through cuts of stratified rock and then again over the sagebrush covered plains—no particular place where you might expect a hold-up.

Along about 3 o'clock in the morning we pulled up at "tank M," just at the edge of a forest to fill. We had about a three-hour run, so Bill (the brakeman on the car ahead of me) and I, rousing ourselves from a cat-nap we'd had, got out to sniff a little fresh air. Bill sat on the step while I took my lantern and went forward to "chin" with the engineer.

Mike was the oldest driver on that division, and had been running close onto twenty years. He was A1 with headquarters and the "Old Super" always sent him out when there was much coin on board. "Have ye any terbacey on yer clothes?" says Mike to me. Of course I knew his weakness and had it ready for him before you could think twice. I had just swung myself up to the engine platform and was waiting for Mike to chew off a piece of the plug, when bang! and Mike dropped. "Steady there," said a voice at my elbow, "and come down." The shot had startled me so that I dropped my lantern. Fortunately it did not go out. When I reached the ground I was commanded to "Pick up your light and follow me."

Instantly a daring scheme entered my mind. The fellow with the gun had followed my movements so closely that his head was within a foot of mine as I stooped to pick up the lantern. It was rather a fool scheme, but I was desperate and thought I would try it. I grabbed my lantern with a firm hold and with all my might swung at the fellow's head as I stood upright. Crash went the lantern and Mr. Robber went flat. This was just what I had intended should happen to him. I crawled along the track until I got clear of the forward trucks of the baggage car and then across the tracks. On the other side I made for the engine. There was Mike lying on the floor of the cab, playing 'possum.

"Hist, Mike," I whispered, "I've knocked him out—let's get before he comes to." With that Mike jumped up, drew open the throttle and away we flew, leaving the scene of the attempted robbery behind.

At the next station, about fifteen miles beyond, the conductor came forward to find out the cause of the shot. Mike and I told our story and he telegraphed to the "Super" at Cheyenne. A posse was sent out and found the robber about one hundred yards from the tank crawling about on his hands and knees. He was blind. They took him to Cheyenne and he was tried and sent up for twenty years.

"But was there only one robber in the scheme?" asked one of the company.

No, there were two others hiding in the brush. It had been arranged that the two confederates were to lie low until a second shot had been fired. They were then to rush upon the express car. However, this did not happen and their pal was left to his fate.

He "peached" on them for leaving him in the lurch and about two years afterwards they were caught in San Francisco doing "second-story work" and sent up.

"And what was your reward?" asked the fireman.

Oh, I received a nice fat check and my present job, he answered as the shrill whistle of No. 10 was heard approaching the station.

V. Lenzen, '09.

Extracts From the Diary of a Turkey During the Civil War

Meadow Brook Farm, Pleasanton, Va., January 1, 1861. My mother, who is the big brown hen turkey that has lost three feathers out of her tail, tells me I was hatched out of the biggest of her eggs last summer. I have spent these fruitful months in getting wisdom and getting fat. One day, in the fall, I was chasing a butterfly and it flew into an open door with me after it, but somehow my wings did not work very well and I fell ker-plunk into some white liquid like water, which splashed all over mc. sadly dirtying my new feathers. Then a most terrible personage appeared with a long instrument of torture, wide at one end, with which she made most alarming motions at me. I fled ignominiously, leaving a trail of that white fluid behind, while the personage came after me with the long instrument of torture. From this I learned that parts of the big white house on the hill are presided over by a person called a cook, who is mostly an expanse of red cloth topped by a black head with small curly black feathers on top. Her symbol of authority is a broom, which is broad at the bottom with a long handle made especially to throw at offending dumb creatures.

April 1, 1861.—The weather is fine. Located an excellent place for worms. An unaccountable disturbance at the big house and much weeping on the part of the female members of the family. This was observed from the currant patch, which is near the side door. All disturbances, whether joyous or otherwise, bode ill for the fowls in the barnyard. I think I shall go up to the beechwoods for a few days for my health.

April 15, 1861.—This weather is fine for earthworms. My health is much improved. I see by the Barnyard Daily Telegraph of April 2 that my most esteemed neighbor, Mr. Strut, suddenly disappeared the night before and it is feared he met with a violent end. The men from the house have been gone many days now. My surmises about disturbances were correct.

July 3, 1861.—This morning the weather clerk, Mr. Cockadoodlespeck, declares the

signs foretell grasshopper weather. this advice I strayed toward the valley hoping to be there before my fellows in the long grass by the river. Suddenly on leaving the woods I saw a great number of strangers, and far across the river other strangers. The two bodies of strangers drew nearer and a noise not unlike that which my mother tells me is made by the red things which the children have about this time every year came from the strangers. Then I heard strange whistling noises above my head, followed by sounds like thunder. Next there was a much londer whizzing noise and I was struck by some object. I fell over and my feet stretched skyward and then I knew no more. When I recovered my senses I fled I know not where. I saw a small hole into which I crawled. This proved to be a long black tunnel.

July 8, 1861.—This weather spoils the sheen of my feathers. I had a most terrible experience in that long black tunnel. I heard some of the strangers say, "We have to move the cannon." Then it began to bob up and down in a most terrible manner, throwing me off my feet, bruising my sides and cutting my wattles. I tried to crawl and just got to the end when it flew into the air and threw me back to the other end, where I cowered, afraid to move. This terrible jumping and bumping continued for a space of time in which I could eat three crops full of wheat. Suddenly it stopped, and after waiting a while I ventured forth. All around me loomed round conical white things and bright fires flashed. One of the strangers approached me and I started to fly, I know not where. The result of which I landed in a sticky mess by one of the fires, from which I was dragged out by the tail and thrust into a cage by one of the strangers with many muttered threats for spoiling his supper.

July 13, 1861.—I am kept in this cage

in front of the tent of one of the strangers, who is evidently a person of note. I fear my end is near.

Editor's Note.-The diary ceases sud-

denly here.

This is no nature fake. Approved.—Teddy R.

CARL MEYER, '11.

The Fog

The fog was dense and the ground wet from the constant dripping from the heavy mist on the trees. The low wind drove the fog so gently that it was like forceless spray.

Close at hand to the right lay the road, but the wild and prolonged siren of an auto very near led us to think that it might be far away so thick was the fog. The constant dinning of the bells on the leaders of the huge logging team seemed like the warning of a buoy on a reef. To strengthen the impression, on looking out only a gray sea was visible.

A dull glow brightened in the east and

almost instantly a sharp wind arose. Swiftly and noiselessly it drove the fog before it, out to the water. Steadily the view lengthened and small wooded islands appeared on a receding sea of gray. Then the valleys, like long-hidden treasures, came into sight. In one of these valleys was a tiny house and nearby stood a tall stump. Some idle boys had tattooed the monsters of the totem pole upon it, and this added to the wildness of the seene.

Far beyond, becoming every moment more clear, was seen the ocean, the source of the fog.

ETHEL ATKINSON, '08.

Uncle Hiram Views a Football Game

Well, sir, I al'ays had an opinion of them High School fellers as a bunch of dudes; but say, I went up to the city yesterday an' seen a football game, an' now when I come across any High School fellers they get the right of way with my respects, you bet! O' course I'd never seen a gennine football game before. I uster think they played jest as a sort o' pastime; but gosh! they seem to play for blood.

I al'ays thought that game was kick about and get a little bit stiff; but, say, there's nothing but bing! bang! whack! Yes, sir, an' I have gone through two wars—but, gosh! I tell yer war is a real pleasure compared to them football games.

I seen 'em put that leather egg—it ain't no ball—about the center of the field; then I heard the empire yell: "Captains, are yer ready?" Then some feller give that egg a kick, an' say, I wouldn't a-gone on thet thar field with two double-barrel shotguns—no, siree!

Another feller caught the egg an' tried to kill the rest of 'em, an' to keep from getting murdered they piled right up on the critter.

Say, but didn't they look like a heap o' rags?

All of a sudden I heard a whistle blowing, an' I sez: "Guess I'll git, 'cause they're calling the police." I didn't want to git tangled up in any o' them police scrapes. But, sakes, alive, I couldn't git out o' thet pesky seat. Then, as I saw things cooling down, I changed my mind and decided to see the finish, an' so I asked a feller in front of me what thet whistle was fer an' he told me that "when the ball is down the empire blows a whistle."

Well, by this time both teams were up an' ready for more, when one feller gave a war whoop, an' with a signal—I think it was five and eighteen, twenty-three—a pretty husky chap, with red an' white stripes an' some sort of a bird-cage or brain-protector on his head an' pin cushions on his shoulders that made him look like that scarecrow in Si Pettygum's corn field, dropped his head an' butted straight as an arrow right through the bunch.

"Hurray! Hurray! rah! rah!" thet erowd began to yell, an' thar was thet husky chap running down thet field as fast as any race-horse I've ever seen down hum; but then, all of a sudden, a big chesty feller with black and gold stripes jumped from somewhere in the air an' landed right on him with a thud. Then the other fellers come a-chargin' down the field like as if they were mad an' stamped an' jumped on thet red an' white striped critter as though he was made o' leather. When he came to he was a sight; gosh, he was minus an ear an' had a black eyethe other one was pretty well battered, too. Then some fellers helped him off the field. I guess his bones were a little stiff. But, say, would yer believe it, but thet pesky crowd jest cheered an' cheered 'em. Then both teams lined up about fifteen feet from a couple of poles with a cross stick, an' a feller of the red and white team-I think they called him the "center crush"—had his hand on the egg, an' I was wondering what they were goin' to do next when an old feller sitting beside me put me a little bit wise to the game. Sez he to me: "It's the third down an' they have five yards to go. Thet feller that took the egg is a-goin' to take it again an' this time he'll put it over for a touchdown ''

"Mebbe he will," sez I, "but it looks to me more like a throwdown or a breakdown."

Just then one of those red-socked fellers yelled 'thirteen, twenty-three, one hundred an' fifteen,' an' the feller with the egg threw it to a feller I think was the 'quarter jack,' an' he threw it away. I guess he wanted to live a little while longer.

Well, by gosh! you can have my farm, an' me thrown in, if a feller on the other side, who wore black an' gold socks, did not grab thet egg quick as greased lightning an' shoot across the field like a deer for his life. There were a couple of other poles with a cross stick, an' he run right under or rather slid under 'em an' yelled 'Touchdown!' Well, he certainly did touch down, both himself an' thet egg. Then everybody began to yell as though they were crazy, an' the feller next me

said: 'I'm going back to the brush; the gold fellers swept the whole game.'

Well, sir, I can tell ver thet after sec-

in' that game I got just about enough of football to last me all my born days. Yes, siree!

D. St. John, '09.

Relation of Mechanical and Academic Work

It has long been thought that academic and mechanical work should be kept apart. This idea has been gradually declining until our present day educators are awakening to the importance of the technical school. The principal reason why these schools remain in the background is that they are misrepresented to the public. People, and broad-minded people at that, take them to be ordinary high schools with a little shop work thrown in.

These schools are not and can not be classed as high schools or mechanical schools. They are far superior to either. Every college in the United States accepts students from first-class technical preparatory schools on a better basis of standing than students from other preparatory schools. Why is this? It is because the association of the two kinds of work develops that logical and systematic method of attacking and mastering a subject which makes a successful student. shop work one knows that to make or repair a part of a machine one must begin at a certain point and in a certain way to obtain the desired result. Again, when this same student gets into the classroom he looks for the beginning of the subject and then develops what he has.

Now from the standpoint of the mechanical student he knows that the uneducated man stands almost no chance in life's battle. He has not the time or money

to take an academic course before learning his trade, so he turns to a school where he can get both at the same time. Here, along with his shop work, he is taught the theoretical side of his work. He learns why things are made this way or that, why this piece of casting is made so much heavier than that. Through his study of English and history his mind is trained and developed in the higher arts. A desire is created within him for more knowledge, and to this end he applies his trained and practical sense, digging deeper and deeper, with a determination to conquer and to rise above the level allotted the common man of a trade.

Many boys graduate from grammar school with no decision as to their life work. For instance, take a boy just graduated with good standing, a bright boy so far as he has gone, but wholly undeveloped, having no idea what he wishes to follow as a life work, or if he has an idea very probably a mistaken one. His parents, however, know that he must have an education, so he is placed in a high school. At the end of four years he is still undeveloped; he must do something, he is no longer a child. He looks about. probably takes a business course and becomes a bookkeeper or stenographer. while he may possess within him the for a master mechanic. If he goes to college, having had no experience with the practical, he may choose a course for which he finds, when too late, he is not fitted.

On the other hand, if on leaving grammar school he enters a technical school he has the best of academic training as well as practical shop work, and in many different lines. He is developed; he finds

by actual experience not only what he likes but what he can do, and is able to choose his life's vocation either in college or at the apprentice's bench through his knowledge of his own capacity and inclination.

S. ATWOOD McKeehan, '09.

A Trip Down a Flume

The waters of the little creeks above Towle are led into flumes. Some of these flumes carry a great volume of water, while the gates in others are closed, partly or entirely, according to the needs and rights of the districts through which they carry water. In these flumes their rushing, foaming waters leap in tiny waterfalls into branching flumes or dash into rocky pools to be shut into stout wooden walls. They, after a few yards of liberty, possess great attractions for the summer visitors to the mountains.

One day when out on a walk with a crowd of campers I lagged behind the rest, being much interested in the antics of a squirrel up in a tree. This squirrel would leap from bough to bough and tree to tree, keeping up a tremendous screeching all the time. I noticed the rest of the party on the other side of a flume through

which just enough water was running to make it slippery. I did not see the plank by which they had crossed, nor did I look very hard for it; in fact, I had often stepped across a flume. But this time as I let go one wall of the flume I felt mvself sliding along the slippery boards and unable to stop myself by grasping anything. After about a hundred vards. going down the steep incline, faster, faster, and still faster, I imitated the flying performance of my tree squirrel and shot over the edge of that flume out over some shallow water, down thirtyfour feet into a deep pool. I escaped destruction on the sharp rocks only by the velocity of my flight, which carried me safely into the deep water. I was soon rescued, a good deal dazed, and wondering whether I was dead or not.

Ellsworth Thurston, '11.

Football As It Is Played

The ball is in position upon its mound of dirt in the center of the field. The players stand in their places on the field as the umpire's whistle sounds. The ball is kicked from the mound and the player who caught it is tackled, or downed, as it is called. We see them lining up for play. This completes what is known as the "kick off," or introduction, and now the same is on.

If we notice the diagram below we find ourselves suspended directly above the opposing teams. They are divided into the offensive team and the defensive team. The team with the ball in its possession is the offensive team. We shall first describe the offensive team and their actions as far as possible.

The offensive team and their play:

In the diagram the numbers 1 to 4 and their prime numbers show what is called the line. The line men consist of: 1, a center: 2 a right and a left guard; 3, a right and a left tackle; 4, a right and left end. (The prime numbers and letters show the left side of either team.) The other four players are called the backs. They are: 5, the quarterback; 6, the fullback, and 7 and 7', a right and a left halfback, respectively. The backs and ends are generally the quickest men on the team and are depended upon to carry the ball. The tackles are generally the strongest and most seasoned players. They being of more use in defensive play we will leave them until later.

The game depends a great deal upon the quarterback. He is the field general and director of the team. It is up to him to find the weak places in the opposing team and send his plays through them. Suppose he notices that c', the left tackle of the opposing team, is rather weak. gives the signal for 7', the left halfback, to go through between Nos. 3 and 4. No. 1. the center, passes the ball to No. 5, the quarterback, who in turn passes it to 7'. Nos. 3 and 4 charge c' and knock him out of the way. No. 7 hits e to keep him from getting in the way and 6 knocks any one else that happens to come in, probably d'; 5 takes the next man that gets in the way, probably f, and 3 and 4 follow round behind their own players to help No. 7' along with the ball. If every player gets his man the runner with the ball is free until he gets to the quarterback of the defensive team g, who is quite a distance down the field. Now, if 3 and 4 have also gotten free they will run interference for 7', and thus put g out of the way, or any one else who tries to stop the runner's progress. When 7' has once passed the defensive quarterback there is nothing left but the goal line ahead, where a touchdown will be made if he can run fast enough to keep away from his pursuers. The touchdown means five points to the offensive team. The ball is then carried out ten yards from the goal line to the ten-yard line, and is held in position by some player for a kick at the goal. If the kicker kicks it between the posts and over the cross bar another point is added to the score, making 6 to 0.

This play just described is called a crossbuck on account of the line. If 7' had gone outside of 4 instead of between 3 and 4 the play would have been called an "end run." Each player would have gotten his man in the same manner.

The plays consist of bucks, end runs, forward passes, kicks and fakes, on which a person could write nearly a book. On the straight buck the player goes straight through the line with every player helping him in one way or another. The full-

back is generally depended upon for the straight bucks.

The forward pass is thrown from behind the line, by the quarterback generally, over the heads of the defensive team to a player who has run out to eatch it. When he has received the ball he does his best to reach his goal with it.

The kicks are divided into two or three classes-place kicks and punts, also fake kicks. The punt is used only to gain ground when other plays have failed to gain the required distance. It consists of dropping the ball from the hands and kicking it before it touches the ground. The kicking of one kind and another is done from a little behind position No. 6 of the diagram, the ball being passed directly from No. 1 to No. 6. The place kick is used when the team is pressed for time and not far distant from the goal. The ball is passed quite a distance back to the quarterback, who holds it in position upon the ground until it is kicked. A goal of this kind is called a field goal and counts four points. It has to be executed very quickly and with accuracy. The fake kicks look as though there is going to be a real kick, and then the ball is passed to some player who thus gets away with it.

There are various combinations of plays which are all based upon the above list. Many of the plays are similar, while others vary greatly. The main object of these various plays is to gain ten yards in three tries, or downs, as they are termed. If a team finds it hard to make the required distance punting and forward passes are resorted to.

We will next consider the defensive team. By referring to the diagram we notice a, the defensive center, playing against 1, the offensive center, and b' and b against 2 and 2', the guards; c and c' are the tackles. They each have two men to look after, and consequently need to be strong and experienced, as mentioned before in this article; e and e' are the defensive halfbacks and d and d' the ends; f is the fullback and g the quarterback.

On the play demonstrated before, which was sent between 3 and 4, it is e''s business to get through 3 and 4 and smash it up, that is, throw the offenders into confusion; e' also goes in to help e'; d gets the man with the ball. If d' or e' or e' fails to tackle the man with the ball it is for f to get him, and if f fails and the runner gets away there is still the quarterback g, who is generally a very good tackler, and who finds the man with the ball alone and unprotected. If g fails to do his work it means five points and perhaps six for the other team, that is all.

When the offensive team is about to kick, the fullback f goes back to help the quarterback g eatch the ball, and to run interference for him when he has caught it.

Once in a while throughout the game you hear the call for water. You ask your neighbor why they make that demand and he will say "Because they are dry, I guess." Now if any of the readers feel that this article resembles the predicament of the players during the game they had better come to the next game that the Tiger team plays and see how it is done for themselves, for it is a great deal easier to learn by one or two practical demonstrations than it is by reading a whole book on the subject. Go to the game and you will quickly gain the knowledge you desire.

Leigh Rodgers, '08.

An Exciting Stage Ride

We were jogging slowly along the dusty mountain road to the Yosemite Valley. Every one was restless and uncomfortable, as it was a very hot day and the stage was overcrowded.

I was sitting on the front seat with the driver listening to his stories of the holdups he had been in. We were just about to round a bend in the road when out stepped a man dressed in a blue army shirt, khaki pants, with sacks sewed around his feet and his head tied up in a red bandanna handkerchief, and with a black mask over his eyes. He carried a repeating rifle in his hand. "Hands up!" was his greeting. I sat and stared. All the stories the driver had told me went rushing through my head. "Hands up! And put them up pretty quick!" he yelled as he saw nobody's hands went up. At this everybody's arms went skyward. We were then requested in no civil tone to get out of the stage, which we did in a hurry. We lined up by the roadside and the robber selected one of the passengers and, giving him a sack, told him to pass it around and collect what money there was in the crowd. As the robber had kept us covered with his rifle from the time he first appeared there was nothing else to do but part with our money. Every one put something in the sack. Many, however, had presence of mind enough not to put in all they had.

Just at this point the second stage drove up and we had to watch them go through the same performance. The robber then commanded us to get aboard and drive off without looking back, and the last glance we got of him he was backing with his gun in one hand and his plunder in the other to the shelter of the trees by the roadside.

N. B.—This is a true account of the Yosemite stage hold-up early this season, as told by one who went through it.

Allan W. Thornton, '10

Daybreak

The stars are still shining as the stage starts from the beach hotel on its trip over the mountains. From the breakers out over the ocean lies a glittering path of silvery moonlight.

As we ascend the mountain the moon and ocean are hidden from view by the dense fog banks, making the road inky black. Nature seems to be the only being and we seem to hear her breathing deeply and freely. As we approach the top of the mountain the moon again comes into view and we can see, too, a few lingering stars still shining. The moon has given a tint of spectral gray to the mists below us and they look like a vast silent ocean.

At the summit the stage stops. The

eastern sky has a bright glow against which the far off mountains are sharply silhouetted. The moon and stars have now vanished and suddenly the first bright segment of the sun appears. It rises so rapidly that we can almost see it moving. At first the fog banks on the eastern side of the mountain were tinted with red, but they, too, have disappeared. A wakeful influence seems to spread over the sleeping hemisphere and the world is itself once more.

WM. H. JAENICKE, '08.

The Making of a Sunday Newspaper

The distinctive feature of the American newspaper is its Sunday edition, yet there are very few of the public that know how it is really made up.

Imagine Young America arising Sunday morning and having to do without his comic section, certain maids without the household and beauty page, father without the wire news, and young son without the baseball and sporting supplement, and untold numbers without their weekly fill of things startling, shocking, morbid or nearly impossible.

That Sunday morning would be a queer one indeed.

The real Sunday newspaper grew out of necessity and competition first, and demand has made it a permanent feature in newspaperdom.

Rival editors realized that on Sundays people had more time to read and got to crowding not only all the news of the previous day, but special week-end reports of church doings, societies and clubs into their Sunday issues.

Here started the growth of features, then only subordinate, now imperatively necessary to the success of a paper.

Merchants realized the fact that on Sundays the masses had a week's pay on hand and that it was a good time to announce Monday's wares. Competition among the leading merchants in the large cities caused them to constantly seek trade through the Sunday press. The mechanic and the employer started the week with a want "ad." for a job or a helper.

Thus advertising helped more than anything else to extend the Sunday edition, because for every page of advertising matter the paper must run a proportionately large amount of news and features or else Old Subscriber or Constant Reader raises a howl that he doesn't and won't pay for an advertising dodger.

One other factor helped to fasten the Sunday paper, in all its immensity and gorgeousness of color, on the public—the development of the rotary press.

A Sunday paper consists, roughly, of two parts, the magazine and the news sections—in reality, though, of half a dozen; the magazine proper, the comics, the sporting section, editorial and staff writers' sections, wire news section, and one devoted to classified advertisements and local news. And all of these must be arranged in one short week. But their collection is a much easier matter than it would seem to the lay mind. Throughout the United States there are many press associations and syndicates which gather news, features, comics, etc. These are the wholesalers of the news business, the press are the retailers.

For the furnishing of wire reports there are now only two large associations, the Associated Press and the United Press. These have central offices, with reporters all over the world sending in daily reports of doings by wire, which are transmitted to subscribing papers.

With the feature part of a paper it is different.

Syndicates and associations which handle the features employ large staffs of artists, photographers and authors, who produce and illustrate stories and articles of moment on present-day doings.

These articles are bought from the syndicates by papers in towns not covering the same zone, but forming a circuit. The comic circuits are generally headed by the New York papers. These journals have each an independent comic section which they produce weekly, use and sell to papers isolated from each other. The larger papers rely very little on syndicate material for their magazine. Each one employs a large staff of artists and authors, men not lacking in imagination, who can write a tale or draw a picture that will stir the minds of the many.

The staff-writers' section was the product of keen competition between Hearst and Pulitzer, and though many journals consider it a fly in the ointment, they produce such a section because journalistic fashion demands it. Here is where high-priced authors and scientific has-beens shine—and, I may add, rising stars, who enthuse over bad verse, near-philosophy and the working man's rights.

This vast accumulation of subject matter is issued as a unit, but by no means is it printed as such.

The larger the circulation of a paper the earlier the color presses start to run. On most papers it is Wednesday forenoon when the last of the plates come scooting down the elevator shaft and are clamped on to the presses.

First is run off the magazine, next the comics; these two parts must be made one by inserting by hand of the comics into the magazine section.

As fast as they are filled in they are mailed to agents in interior towns, who attend to the subsequent insertions. This is done to save time on Sunday mornings.

All but the city circulation is thus disposed of, and about Saturday noon or a little later the color press stops and a new paper is run off containing the sporting and staff-writers' section, which must also be inserted into the magazine. About 11 p. m. Saturday the section containing the early wire news, stock news, European and letter news is run off and inserted.

About 1 or 1:30 a. m. Sunday the last of the paper goes to print. This contains the classified "ads.," dramatic criticisms and local news.

Then comes the last final nerve-racking round of insertion, only broken at intervals by the mail clerk's "Come on, boys; hit her up," etc., which lasts until the last of the magazine is complete and on its way, generally about 8 or 8:30 a, m.

With all its popularity, the Sunday paper is too large and cumbersome, covers too large a field, is too sensational and altogether too costly a production to remain as it now is.

John Raber, '10.

TECHNICAL

"The Evolution of the Railway of the Future"

A railway is not simply an improved public highway, but a complicated machine for transportation, requiring splendid ability for its successful management.

During the early part of the eighteenth century it took James Madison one week to travel from New York to Boston. The cost of freight and mail was so great in those days that it was absolutely necessary for some means to be invented whereby both cost and speed would be reduced to a minimum.

Railways were finally built to meet these demands, and ever since their invention great improvements have been constantly made, except in widening the gauge, which has always remained the same-four feet eight and a half inches. Now that the amount of traffic has increased to such an extent, the question of widening the track is being considered. Many think that more trains could be run over the present tracks and answer all purposes, but this would require more train crews, and that would increase the cost and danger. But if the gauge were widened to seven feet larger trains could be run faster and safer without necessitating larger crews. One of the many places where this gauge would be of advantage is on the New York Central, where the congestion of traffic could be reduced. The gauge will eventually have to be widened to keep up with commercial demands.

Outside of this, there are other engineering feats in railroading that have been accomplished during the past twenty-five years which have up to the present answered all requirements. Great tunnels

have been bored; for example, the Simplon tunnel in the Alps, the longest in the world, has helped a great deal in saving time between Switzerland and Italy. The subways beneath the Hudson River have brought Jersey City closer to New York than any other means that could have been devised. The great bridges which span wide gorges and rivers are notable examples of engineering. The one at Niagara, and the Zambezi bridge in Africa, which is the longest in the world, have both helped to reduce the cost and make the transportation of greater amounts of traffic possible.

But the present requires much more, and therefore the boring of tunnels under the Rocky Mountains is being considered. The Western Pacific Railroad, which in a short time will be opened, has accomplished probably one of the most wonderful feats of engineering yet undertaken. Through the Feather River Canyon, in the Sierra Nevada Mountains, over forty tunnels have been driven. The cost in this Sierra division will be nearly \$100,000 per mile: the value of the powder alone used in blasting one mile is estimated at \$1000. This section is exceptionally rough and mountainous, but they have climbed it, using only a one per cent, grade.

Eventually the roadbeds will be widened, larger bridges will be built and longer tunnels bored. This must come if our development is to go on. Great railroad magnates are now considering this enormous undertaking. And civil engineering is still attractive to those soldiers of fortune who seek new worlds to conquer.

ROBERT HUNT, '09.

An Attempt Which Is Being Made In San Francisco to Solve Aerial Navigation

The machine is of the type heavier than air, having no gas appliance to aid in lifting. It consists of two main parts, the top containing the lifting mechanism and the floor below on which is placed the motive power.

All the moving parts are driven by a twenty-thirty horsepower Frayer-Miller air-cooled gasoline engine. The power is transmitted to two counter shafts by means of a friction transmission similar to that used in the Lambert automobile.

The top, which we will call a hollow plane, is about twenty feet in length, ten feet in width and six inches deep and pointed at both ends. There are eight circular openings cut in the plane, forming two parallel rows of four each. These openings are lined with sheet aluminum and in them revolve the eight wheels or fans which form the lifting mechanism.

These fans have a rim of oak, which is about four feet in diameter, three-eighths of an inch thick and two inches wide, connected to the hub by steel wire spokes. In order to make the wheels strong these spokes are passed through a second rim of twenty-four inches in diameter. Between these rims are placed the blades of the fan. These blades are also of sheet aluminum and are placed at a very small pitch. The whole resembles the fans of an electric fan on a much larger scale. These wheels are keved on vertical hollow steel shafts driven by beyel gears from the two countershafts, which run the whole length of the machine. All shaftings run in ball bearings.

The supports for the counter shafting, as well as the floor, are suspended from

this top plane by means of ten U-shaped oak ribs five feet high and three-quarters by two inches in thickness and breadth. Five of these U-shaped ribs are fastened to the plane and the other five are fastened to these just at the curve of the U. The bearings for the forward drive are fastened to the centers of the upper U and the floor is laid on the lower ones.

The driver which moves the machine forward through the air is built upon a hollow shaft one inch in diameter and nine feet in length. It is divided into two sections by the middle bearing, which occupies about one foot of space. At each end of the two sections is a wheel twenty inches in diameter. These wheels are built with oak rims and steel spokes similar to bicycle wheels, and between each pair of wheels are stretched eight sheets of aluminum. These aluminum sheets are spaced equally about the shaft and fastened to the spokes of the wheels, extending radially from it for eight inches, having an advance of one-quarter turn in the length of four feet. The spaces between these blades resemble the rifling of a gun barrel.

At the end of the forward drive is placed a box rudder set on a universal joint. The current of air which is made by the forward drive will be forced through the rudder and by turning the rudder in different directions the air will be forced out in this direction. By turning this moving air against the motionless air the machine can be navigated.

The machine in all weighs less than a ton and is calculated to lift over two tons.

A. Wills, '09.



THE TIGER

The Tiger is published every quarter by the Students of the California School of Mechanical Arts (founded by James Lick), at 16th and Utah Streets, San Francisco, Cal.

Subscriptions - \$1.00 per annum. Single copies, 25c. Advertising rates upon application to Business Manager.

Entered as second-class matter August 22, 1907, at the post office at San Francisco, Cal., under the Act of Congress of March 3, 1879. Exchanges address to C. S. M. A., 16th and Utah Streets, San Francisco, Cal.

ARCHIBALD B. TINNING, '08	Editor
ASSISTANT EDITORS	
Henry Wolff, '08 Elizabeth Bridge, '08 Robert Ackerman, '10	Literature
Ashleigh Simpson, '09 Mary Raber, '08 Lillian Capp, '09 Gladys Elliott, '10	.School Notes
Leigh Rodgers, '08 Bertha Knell, '09 John Little, '09	Athletics
Stewart Wilder, '08 Claire Hodges, '09	Exchanges
Charles Brandstetter, '08 } Marguerite Boyd, '10 }	Poetry
James B. Black, '08 Ralph Ensign, '08	Joshes
Samuel Jacobs, '08 Edward Swartz, '08 Henry Glazer, '08 Ethel Barry, '08	Shop Notes
Ernest Thompson, '07 } Lester C. Uren, '07 }	Alumni
Monell Randall, '10 Alfred Pyle, '08 Joseph Crigler, '08 Alexander Bell, '09 Harold Bruntsh, '09	Art
ASSISTANT MANACERS	

Howard Lee Dietterle, '08 Mary Raber, '08 Fred Hornich, '10

This issue of The Tiger is the first under the new management. Lack of experience, rather than of willingness, is our plea against too harsh criticism.

The Student Body should carefully consider the need, year by year, of trained men to fill these positions of management and supervision.

With this end in view we have appointed this year an Editorial Board larger than is usual in order to afford this training. Then, too, a numerous Board can do the necessary labor with the minimum of interference with school work. From this larger group men can be chosen for the responsibility in the coming years of publication.

CONDUCT.

In the disordered condition of our city and the consequent disturbance and unrest of its public and social life, we, as the students of the finest school in the city, the one dedicated to the fulfillment of the ideal of the dignity of mechanics-we. above all others, should at this time conduct ourselves with even greater care than common upon the streets, cars and ferries.

We owe it to ourselves as future citizens of the city to help quiet this present spirit of social laxity and disorder.

What we can do is to be dignified and orderly in public. Not alone for the sake of the good name of our school, but as our share in the task of bettering the social conditions in San Francisco.

Moderation.

We all know the faculty's opinion on athletics, school activities, etc. Mr. Merrill does not want to restrict us, but he does want us to be moderate.

Each year more and more time is spent on outside activities. The drain on time continues, but more hours do not come in the day. The general standard of scholarship is in danger of falling for this very reason.

We can not do so much and all at our best. Where are we wasting our energies? There is a standard that we have to live up to in all school activities. This always has been high at Lick. Are we attempting too much? This question is of such importance that we should discuss it at the next rally.

Rugby.

Another topic that is of interest to many is Rugby. It is a new game to nearly all of us, but the colleges play it. To our athletes who intend going to either of the colleges, a preliminary knowledge would be of immense advantage.

The adoption of the game would probably bring a new class of athletes out. Thus it would not interfere with the policy of moderation. There is much to be said of the game, and its adoption as a separate sport should be considered by the student body.

Appreciation.

The hardest thing an editor has to do is the selection of articles. There are many factors to be considered in this choosing, such as length, theme, etc.

On the whole the articles have been good and we wish to thank the many who tried, often several times, and were not successful, as well as those who did succeed.

In many cases stories which opened with swing and action weakened toward the end, showing haste. Maybe the fellow's fingers got tired, or rather his ingenuity.

The cover design for this number is not a nature fake. It was not even done by Ernest Thompson Seton. A real live feline spent an unpleasant half hour designing it. After an exciting chase through the jungle in the vicinity of the editorial rooms of "The Tiger" a kind neighbor took pity on our plight and lent us her gentle, ladylike cat.

The placid creature passed into strange hands little knowing the trials before her.

Upon entering the Sanctum Sanctorum her paws were dipped in an inky paste. Then she became a seal!

She was at first only gently protesting, but being well shaken to produce effervescence and that ferocity that would cause her to extend her claws, she escaped editorial control. What a spattering!

Hereafter the casual visitor to our editorial rooms will notice "Tiger Prints" on the ceiling, walls and curtains. A few marks are noticeable where the broom and ink pot hit. A good life mask of pussy's paw was taken, after which the frightened beast gave us a few fits for full measure. The editors, after this experience, can not but regard the effect as striking, even though the subscribers may think it only a "scratch" cover.



"The Advance," Areata, Cal. This book is remarkable, not only for a novel form, but it has good stories, better jokes and the verses are among the best we have received. Well edited and pleasing in appearance, it is a credit to any High School.

"The Trident," Santa Cruz, consists principally of school notes and photographs. While these are good, alone they do not constitute a top-notch paper. We suggest more stories, more verses and more joshes.

"The Hyak" consists principally of school notes and articles of local interest. The parts which we generally look for—stories, exchanges, etc.—are missing. While it is probably eagerly read by the girls of Annie Wright Seminary, we finished it with a yawn. A few jokes would go a long way toward remedying this.

"The Tocsin," Santa Clara College, has reached the high-water mark of excellence. The graduating class that produced it can retire satisfied that they have done their duty by their school.

"High School Herald," Westfield, Mass., is unlike our other exchanges. It is purely literary, and—to us, at leastlacks the interest an exchange column and a page of joshes would lend to it.

Till the arrival of The Totem we had always thought of Juneau vaguely as an Eskimo village "under the circle," slightly patronized by prospectors and whalers, where they eat tallow candles and whale blubber three times a day. Our opinions have changed considerably since. The paper is small, but it is evident that the editor made the most of her material. A few cuts and headings, and the appearance of your paper will equal in attractiveness its contents.

The "Blue and White," Sacred Heart College, would be much improved by a better form. The matter is not subdivided enough and "ads." are not confined to the back of the book. The editorials are good.

"Oracle," Bakersfield High, would be improved by a few cuts.

"Mission Graduate" is a good paper. Good form, good stories and drawings make it readable and attractive.

"The Manzanita," Watsonville High, is a neat little paper. The article on civic improvement needs no apology.

The "Blue and White," Los Angeles

High, stands at the head of our list. We picked it up with expectancy, read it with enjoyment and closed it with a feeling that it had reached the top of the ladder. The art staff is especially to be congratulated on their work.

We are glad to see a paper like "The Lowell Annual" from our own city. It is very attractive in appearance, and within the contents do not belie its looks.

Congratulations, Wilmerding. Your "Life" is the most attractive exchange we received, and it is with pleasure that we remember that you are our next door neighbor. It is hard to think that the commencement number we received is the same paper as the one received a few years ago. We have nothing but praise for it.

"The Elm," San Mateo High, goes in for stories particularly. This is something

many papers lack, and we wish to commend you for it. Joshes should, however, not be neglected.

"Crimson and White," New York Normal School, Albany, N. Y. A very interesting and dignified paper. Possibly a bit heavy, but on the whole an excellent exchange. Eastern papers are always interesting to us.

"Russ," Russ High School. Your paper always has been one of the best of our exchanges. The Commencement number is even better than usual. The cover design is in itself notable. Good work, Russ; keep it up.

"Olla Podrida," Berkeley High School. Always worth while, you are especially interesting to us as being run without advertisements. The cover drawing is good. But the general appearance has fallen off.





August 26, 1907, marked the first definite action of the assembled Student Body this year. A rally was called by President Rogers for 3 o'clock. The students gathered, however, immediately after 2:40, as Mr. Merrill had several remarks for the school in general. About 3:20 the actual rally started off with the immortal "Alibe-bo." President Leigh Rogers made a short address and was heartily clapped and cheered, this being his first rally as President. The school responded admirably to the vigorous gestures of "Father" Ensign in his new capacity of Yell Leader. Mitchell was called to the "post" with three cheers. He seriously dwelt on the need of new football suits for the team. "Some of my compatriots," he remarked, "came on the field with a pair of tattered stripes and a smile, a few without even the stripes."

Next Charlie Bell rose up in his might and spoke on football. Three ripping cheers "before and after" characterized the students' regard for Bell.

Hupp was then called upon to talk track. He appeal d, as his predecessors did before him, to the Freshmen for new material. "All they have to do is to come out and try," was the sensible motto of Hupp. Hupp told also of the new track coach, who was already up at the track. Things certainly look bright in the track line.

Padilla then made a touching speech to everyone concerned. "Youse scrubs" and the rest of "youse" all know what he said.

Tinning, the new editor of The Tiger, then informed the Student Body of the existence of his paper. He also appealed to the Freshmen for support.

Simpson was then called upon for further words concerning The Tiger. He spoke to the Student Body as a whole and then to them separately concerning the necessity of good material for the paper.

Business Manager Gallagher next was given a chance to say his never-ending ultimatum on "ads.," those little things which make our paper a success or a failure.

Hemlock Ensign then capped the climax with a few words and another "Ali," after which the halls became a struggling mass of escaping students, and the first rally was over.

In the rear of the crowd George Bromely, formerly of Lick, and Read and Laine, of Lowell, could be seen nodding their heads over "prospects" and shaking hands with friendly and future rivals.

On September—, 1907, at 12:30 o'clock, President Rogers called the second rally of the year. Pink slips were passed around, and with the aid of "Padilla at the post" and "Miss Capp at the piano" the Student Body rendered a few of its familiar and delightful selections.

Manager Gallagher spoke a few encouraging words on The Tiger and Mitchell made a few remarks on football.

The one feature of the rally was an original "roast" by Freeman Smith ('09). He scored everybody hard and talked a long time. A good many are still asking why.

Off in the distance the whistle blew and Ensign closed the rally with a "big Alibe-bo fellows."

A track meet was held with Cogswell on the 13th. The results unfortunately were too late for this copy.

Henderson, ('06) and Lester Uren ('07) have been the notables among our alumni visitors.

With the organization the Juniors have given the Freshmen, and three rallies to our credit as starters, we hope sincerely that the year 1907-'08 will be a prosperous one for Lick.

We wish all success to Mr. Drew, who has removed his thumb-tacks and apprentices to the top floor of the new shop building. The old drawing room has prospects of being a mechanics' room in the future. The spare room in the basement is the bone of contention between several activities. What Mr. Merrill will do with it eventually is not yet definitely known.

Senior Seminar has been reorganized by request of the Senior Class. This brings the whole class together every two weeks, where, under parliamentary rules, they discuss different topics which are presented by a member in essay form. A

committee of three from the class conferred with the Faculty and procured the old minute books, also deciding upon a plan of organization.

A committee of six was appointed, three from the class and three from the Faculty. This committee has drawn up a constitution and now permanent organization is being formed.

THE '09-'11 PICNIC.

The '09-'11 picnic, held in Berkeley on August 31st, was very much enjoyed by the Freshmen and Juniors.

Miss Bridgeman made her pretty home the headquarters for the day. The party had the pleasant company of Miss Otto, Miss Edwards and Miss Burns.

GIRLS' RALLY.

A rally of the Lick girls was called on August 27 in the Physics lecture room for the purpose of organizing the athletics of the girls into definite branches.

Miss Hodges opened the rally by stating its purpose.

Miss Otto was then called upon to state her views. She suggested that the girls of each class should organize into separate clubs to further inter-class contests in the several branches of the girls' athletics basketball, tennis, boat club, etc.

Miss Southwick, the next speaker, spoke in favor of inter-class contests more to the exclusion of interscholastic meets.

Miss Bridgeman offered some suggestions concerning the Camera Club tramp, and very kindly offered her assistance in all ways.

Founders' Day.

Founders' Day has always been an interesting day in the year to us. On this day we realize our wonderful advantages in being able to go to such a school as the California School of Mechanical Arts.

This year, in the commemoration exer-

eises held during the morning, Mr. Merrill was the speaker. His talk, telling us of the only surviving member of the original trustees of Mr. Lick's will, Mr. Horace Davis, and of the life of Mr. Lick himself, was exceedingly good. We all realized what Mr. Lick's desires were and how very important the one gift often least thought of by outsiders was.

It was altogether a very fitting and interesting program. The friendly, informal manner of its conduct added to the general good spirit.

We all had our idea as to the purposes and ideals of the school refreshed, while the Freshmen received their first definite impressions of these.

In the afternoon the visitors, who were very numerous, showed great interest in the school, each department receiving its full share of attention.

The Academic Department received more than that of other schools would have, because people wanted to see how the work that seemed to fit in so well with the shop work was conducted. Many compliments were given us on this system of equal development.

That the day was successful is beyond doubt, and may we have numerous repetitions of it.

Alumni

Our school can well be proud of her Alumni Association, which had its beginning with the graduation of the first class in 1898. The Association was organized with the avowed purposes of extending acquaintances and friendships among its members and of making possible and augmenting social intercourse and enjoyment. In accomplishing its purpose it has been signally successful. All of James Lick's sons and daughters look forward to the occasional reunions, at which entertainment and dancing form an important part,

while the mingling and co-mingling of classmates and schoolmates, teachers and friends, forms a most important part. Such reunions, in which we learn of the vocations and successes of the members of our big family, are always looked forward to, and we find ourselves already planning for the entertainment and dance for Friday night, October 11th, at New Hall, Twenty-first and Howard The three-act sketch, entitled streets. "Turned Up," promises to be a feature of the evening, and will be followed by a good dance which will not terminate until the wee small hours tell us Saturday has already a good start.

The officers in charge the present year are: President, Jerome Barieau; First Vice President, Miss Adele Winchell; Second Vice President, Harry Dearin; Third Vice President, Miss Josephine Girot; Recording Secretary, Miss Ada Roos; Corresponding Secretary, James H. Wise; Treasurer, Arthur Hall; Sergeant-at-Arms, Ernest Thompson.

For some of us who can not be present it is fitting to say a few words.

William Copeland ('98) is following mining engineering work, chiefly in Alaska, and has been very successful.

William J. Pitchford ('99) is in South Africa, engaged in mining work. He is Assistant Superintendent for one of the largest mines on the Rand.

Arthur H. Markwart ('99) is a junior partner of the architectural and engineering firm of Howard & Galloway, and at present is in Seattle looking after the firm's interests there.

Otis Gibson ('04) is with F. G. Baum & Co., and for the past year has had charge of a survey party in Nevada exploiting hydraulic development work.

Freeman W. Bowley ('05) has left for West Point, having lately received an appointment from Uncle Sam. Congratulations. Harriet Park ('06), who formerly did considerable art work for The Tiger, is now at Stanford making a record for her school and herself.

Clinton B. Allsop ('07) is with the California Gas and Electric Corporation on a survey party in Butte County.

Ferda J. Ogle ('07) spent the summer on survey work in Nevada County, and is now at the University of California taking up civil engineering work.

Jerome Barieau ('06), President of the Alumni Association, has left the University for a year. A fine position was the cause, we understand.

We wish to thank Mr. James H. Wise ('99) and Mr. Jerome Barieau ('06) for information. All Alumni news gratefully received. Please address to Editor "The Tiger."

FROM STANFORD.

L. F. Halloran, a member of the class of '05, is an officer on the Encina House Committee.

Davy Walker, of the class of '05, is an assistant editor on The Daily Palo Alto, and has also been elected to serve on the Junior "Plug-Ugly" Hat Committee.

Rodger McPhearson, Elmo Cope and H. Blodgett, of the '05 class, have not registered this semester.

E. C. Boobar, of the class of '06, is an assistant editor on The Daily Palo Alto.

Edwin A. Rodgers (Sue) ('05), is out for Rugby, and stands in line for a place on his class team, with a chance at the 'Varsity. The members of the class of '07 who were successful in battering their way through recommendations, examinations and registration, and who for one year, by virtue of their attendance, will be permitted to go bareheaded, are: Harold Wood, Wilfred Lobey and Ernest Thompson. Lobey, in a tryout among a large number, secured a place on the "Glee Club."

The following members of the University of California are with the class of 1911: Ferda J. Ogle, civil engineering; Walter H. Carrick, mining engmeering; J. Sharpstein, mechanics; Herman Leffler, civil engineering; Walter Voogt, commerce; Harold Fisher, mining; Emil Meuheim, civil engineering; H. Rintoul, civil engineering; Melville Erskine, social science; Charles Ebright, special; Lester C. Uren, mining. Lynn Hotchkiss, Harold Walker and D'Erlach, former Lick men, are also among the intrants at the State University.

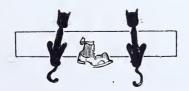
It is rumored that Arnold T. Brown ('07) has been whiling away the summer hours selling maps to the unsuspecting natives up in Oregon.

The jovial face of "Bill" Henderson ('06) has been seen several times this quarter.

Charles Mel ('06), our A. A. L. representative, visited with us one afternoon recently.

Arnold Brown ('07) called upou us. His plans are not yet settled.

Mrs. Howland (nee Dinsmore) gave us the pleasure of a visit.



Shop-Notes

Woodwork.

In the pattern shops Mr. McLaren and his apprentices in pattern making have settled down to hard work. Mr. McLaren has initiated his classes into the art of joint making, the use of tools and the different machines. They have been somewhat handicapped by the non-arrival of tools, but from now on the work will fly, as will some fingers. No outside work has been taken as yet. Jim Gillis turned out a nice piece of workmanship, making the pattern for a connector between the engine and water tank of a gasoline engine. On the whole, things are progressing rapidly.

Foundry.

Prof. Lacoste's Palace of alternating work, dirt and dusting is again moving its huge wheels of industry and turning out its complement of work. The boys, recollecting their mud pie days, are putting it to use. The uses and misuses of the tools are all understood, and the boys are getting on well with the exercises.

Starting with the practical work and leaving the technique to be learned at home, Mr. Lacoste soon had a shop full of full-fledged foundrymen. The engine having been repaired, and "Capa City" running a few hours at a time, the work will soon be turned out in bunches. The core

machine has also been added to the already "large" complement of machinery. Cores will be turned out like sausage. Among the mentionable work already turned out are the castings for gas engines; some 30 horse-power gas engines are now being molded. Among the castings are two 36-inch flywheels some large cylinders and miscellaneous parts.

The foundry has been greatly improved by the addition of a coat of whitewash and a new office for Mr. Lacoste. At the latest reports "Capa City" was still on a vacation and refused to work.

Forge Shop.

The hammer and sledges are ringing as merrily as ever in the forge shop. The classes are very large, but the Sophs, being small things, manage to find room. The boys have taken hold of the work in earnest and are working hard. Nearly all the boys have finished the hammer practice, some using the sixteen-ounce and others the sixteen-pound, according to the size of the Sophomorc. A few of the advanced pupils have finished the first exercises creditably.

The term having just started, very few jobs have been done by the apprentices, Bell and Flynn, but the shop has undergone a good cleaning under their hands. The broken tongs have been mended and chisels were drawn out. The broken hammers were faced up and things generally straightened. A few outside jobs were poor push out of the work in Mr. Mathis' department. Among them were some crank shafts and blank gears.

The appearance of the shop has been greatly improved by the addition of a coat of whitewash. A further improvement was made in the shape of a rack containing forgings made by the students. These were on exhibition at the Portland Fair. They are a credit to the school and are fine examples of the work done in the forge shop.

Through the appreciated kindness of Mr. Carrick, Superintendent of the S. P. shops, the boys were given a mechanical treat. The treat took the form of a visit to the shops to watch the process of a "Thermit" weld on the frame of a locomotive. The trip was immensely enjoyed, and the boys added another gain to their store of wisdom.

Machine Shop.

A few words must be said in regard to the practical line of work that is carried on in our school, as well as of the theoretical side. To those who intend studying the mechanical side, the shops and their contents are a pleasure. They are proud to be at their benches chipping and filing their block, gradually transforming a rude iron bar into an object of mechanical use.

The Juniors, who have just begun machine shop practice, are doing pretty fair work. Anyone would think that the shop had been turned into a stone-cutting establishment by the tapping of hammers on the first exercise, which the "green hands" take such a delight in doing.

The Senior Apprentices have a great deal of work on hand, the polished men having graduated and there not being a great number of apprentices to do the work this year. The machine shop has quite a reputation worked up owing to the good work the boys have done on the mining hoist. New eastings for a four by six-inch hoist are ready to be turned up.

Owing to the satisfactory results obtained from the pipe-cutting machine there has been quite a demand for them. This demand has been added to by the shortage caused by the burning of so many in the fire

Among other things that are under construction and expected soon to be finished are the 10 horse-power direct current 220-volt motor, the 1 horse-power alternating current 2-phase motor for the 20-foot shaper which is nearing completion, and the disc-punching machine. The repairing of the foundry engine is finished. The repairing and winding of small motors has kept the electrical apprentices busy. "Baby" Dill, the energetic youth from San Diego, is rewinding armatures.

Chemistry Notes.

The chemistry laboratory is to have many new features during the coming year, among which will be a new blast furnace for the analysis of brick and fire clays. This will be run by gas, reinforced by air under pressure, which will be piped from the machine shop.

More new apprentices than can be conveniently handled are now taking the apprentice course. They are "Mush" Bates, "Bull" Boxton, W. Marshall, and "Herr" Merchelbach, and under the new system now employed by Mr. Tibbetts they are well advanced in their work.

The Seniors are soon to take a special course in food analysis, departing from the ordinary routine of work of general inorganic chemistry. B. Whetmore is making some difficult analyses of iron along his special branch of study.

The accident which occurred to Miss Zelda Fox, when an oxygen tube exploded. was but a slight burn, and contrary to reports she is nearly well and is about to return to school.

The senior chemists have once more organized the Senior Chemistry Apprentice Association, and have drawn up an entirely new constitution for the organization. The "Sign of Ye Stirring Rod" is gaining prominence and is soon to be an influential branch of school affairs. The members of this organization are: "Grand Mogul" Bilay, "Seribe" Altman, "Smiles" Whetmore and "Cute" Glaser,

Cooking.

Miss Robinson promises us some very good material in the junior girls of the coming year. Already they have taken hold and are settling down to good work.

Their first experience was to learn to cook eggs in many different ways. The next week a breakfast menu followed, composed of four courses. On Friday of that week they were given their first lesson in serving. The guests were the girls from one of the tables.

Since then the girls have been preserving fruit. Preserved quince and plums, grape jelly and chipped pears are now on exhibition as being creditably done. Breakfast menus will be returned to until the end of this quarter.

Another interesting thing which the cooking class did was to take a trip to the butcher shop, where the head butcher instructed the class on the different kinds and prices of meats and also showed them the preferable meats for cooking.

Sewing.

The Freshman Class began their work and are now learning the various stitches to be used in the sewing later on. This practice work has taken them all through the first quarter.

The Sophomore Class this year had some very unusual sewing. They have been making aprons and blouses for the Freshmen boys in the wood-working shop. The work is being rapidly turned out, and it will nearly be completed by the end of this quarter.

The Juniors are sewing upon their infants' clothes exercises which are all done by hand. They also have worked upon the boys' blouses and aprons.

The Senior girls worked hard cutting the aprons and blouses during the first week of school. They have since finished the hand-made dress for the doll which is to go on exhibition in Chicago during November. They are now starting a tailor-made suit and a silk waist.

Mechanical Drawing.

The work is now running smoothly in the new mechanical drawing room. After the chaos from moving was over order was restored quickly, due to the energetic foremanship of Dr. Drew.

The boys took to the situation at once and worked hard—that is those who worked. But on the whole it was an encagetic crowd of boys who put things in working order.

The drawing classes are all very large this year, the surplus showing the increased popularity in drawing. Mr. Drew is giving extended lectures with the work this year, re-enforced by a good notebook system. The notes will impress the forgetful student's mind with what's wanted. All the classes were required to do a sheet of freehand lettering, to improve the general standard of lettering among the boys. The sheet was drawn at home, expressly to give the Freshmen time to grow up to their bench before starting the first sheet. Great versatility is being shown in the ranks of the Freshmen in interpreting the symbols of our Professor's "Esperanto." The gestures, points, question marks and crosses are read with astonishing rapidity. "Esperanto" is growing popular.

The Senior Course XI Class has just reached the brink of descriptive geometry. Some boys have their models made and are progressing satisfactorily.



Football.

Once again we find the surface of our back lot broken, softened and made ready for the fray, thanks to the tireless effort of Manager Bell and several others who, with the combined forces of harrow and horse, succeeded in making a pleasing impression upon that hard mixture of clay and sand. Once more we hear the familiar "plunk" as someone's foot meets the ball, telling us that the game of the year has returned.

It seems but yesterday since we saw that cloud of dust and that grimy group of individuals rushing to and fro across that wind-swept plain with the papers blowing in and out among them. But when we pause and begin to count the hours, and then the days and weeks, we soon awaken to the fact that a year has been tucked away somewhere, and that those many-colored suits we see contain an altogether different lot of fellows from last year. Yes, there are many new ones out working hard for the team, but there are just fifteen more empty suits waiting to go out, so if you feel inclined to play the game

just tell the manager or captain and he will do the rest.

The outlook so far this year has been very encouraging. Many of the old players have returned, and the new ones seem very interested in the game. The Freshmen show up especially well this year, perhaps better than for several preceding vears. This showing makes us feel that there is still some hope in the athletic line for the school in the years to come. We also notice new faces from classes other than the Freshmen. That is the proper spirit, fellows. You know it is never too late to begin a thing. Even if you have never seen a football, come out and try for the team. Many a star player has been found and developed in just such a way. There are plenty of players that are only too glad to show you the various ins and outs of the game.

The proposition of a coach has been a hard one. We have talked with college and academic players, both old and new, and have found it almost impossible to find a man that knows the new game well enough to be able to coach it properly.

We tried our best to secure the services

of our last year's coach, Mr. Hotchkiss, but he is very busy and can not be obtained, Thanks to the careful coaching of Hotchkiss, there are several of the old players who are fairly well acquainted with the new game, and with their help Captain Mitchel is going ahead with the work.

It is up to the fellows themselves this year. If we want a winnig team this year there must be practice, and hard practice. Every fellow will be given a fair show, but he must take a lot of knocks and hard work and say nothing. That is the only spirit this year—the old spirit of Lick, "Never say die!" Many a team has won on that sort of spirit. Then why can't

There are several practice games to be played before the league games come. We shall probably get worsted in one or two of them, perhaps all of them, but what does a practice game or two amount to if we can profit by it in the end? On the other hand, if we should be lucky enough to win a game or two at first don't think that all the results will be the same. More than one good team has gone down to defeat on account of being just a little overconfident.

When the league games appear, especially the first, come and help your team to win. The team alone can't do everything. They play the game and take the knocks, many of which are not the light little taps that one might think they were from the sidelines. All they ask of the school is to come and cheer them on to victory. Come with your "Tiger" stripes and your "Tiger" spirit, the spirit of Lick, the spirit that wins. Come and back the team—your team. The team will do the rest

Track.

The outlook at the beginning of the year in all branches of athletics was exceedingly bright, but with the announcement that everybody would be restricted to one branch of athletics the spirit took a slump. This restriction crippled the Track Team greatly in the weights, as our best weight men play football and prefer that. At the same time the restriction to one branch of athletics was issued came an announcement that Mr. Merrill wished us to drop from the Bay County League. Considering that the Bay County Track Meet is the best outside of the Stanford Interscholastic Meet, the drop of spirit is not surprising.

While this gloom had settled down upon the school as well as the team, a few men were seen upon the track every night. They consisted of a few old men and some new ones. Coach Lidga took much pains with these, with some good results.

Coach Lidga is a graduate of the University of California and now teacher of Physical Culture at the University of Arizona, upon his vacation. Mr. Lidga is an all-'round athlete and considered one of the best upon the Pacific Coast.

About a week after the gloom had settled good news came, and once more things looked hopeful. Mr. Merrill had consented to allow us to compete in the B. C. L. under certain conditions. Immediately a reaction set in and the spirit rose high above normal. Now we have sixty men signed up, and all are training faithfully under Mr. Lidga.

So, on looking at our losses, things are discouraging, but to get out and see those that are training changes the aspect. The loss of Bettoli in the fifty-yard dash is felt keenly, but to fill his place there are several speedy men. The most promising of these is Hirshfeld, who has not been running in the last field days. In Golcher we lost the best 100-yard man that has been in High Schools for quite a time, and his time of 10 1-5 will undoubtedly be left untouched for a while. To take Golcher's place we have Captain Hupp and a man from Shasta County High School who is

running in good time. Holt is un-loubtedly a point-winner. Captain Hupp should clip a little off his record in the 220-varid hurdles if he can improve his form. In the 220-yard dash Archie Butler's place will have to be filled, and Branstetter at Baxter look the most promising. The 440-yard dash looks open; both Newton and Padilla seem probable winners, although both run the half-mile. In Padilla we think we have a man who can take care of all, even the Berkeley man.

The mile run has Little, from last year, who is now running well and seems a winner; also Daniels, who is not far behind him. Daniels also runs the two-mile. Daniels and Cortelyou are doing finely in the two-mile, and either should fill Lodge's place satisfactorily.

The field events are a trifle weaker than last year. The loss of Charlie Bell is certainly a great one, as it not only affects the track, but also every branch of athletics. Charlie Bell is an all-'round athlete, as well as a good student.

In the broad jump Captain Hupp and Holt figure very evenly.

In the shot-put Graff has every appearance of stepping into Bell's place.

Even though our losses have been great, the men developed by Mr. Lidga will more than fill the losses. Mr. Lidga has been called away sooner than he expected to be, and every member of the Track Team was sorry to see him to go. We fully appreciate the work which he has so faithfully attended to. The Student Body as a whole, and the Track Team especially, wish to thank him.

INTERCLASS FIELD DAY.

The Interclass Field Day was undoubtedly the best that has ever been held. The spirit shown by the class in turning out and the routing section could not be surpassed. Almost every student was upon the scene, each with their own class. From the time of the start of the fifty-yard trials until the relay was won by ('10) things were lively.

The two-mile was the most exciting race of the day. Quite a few started out, but by the end of the first half mile it had developed into a race between Daniels ('10), Cortelyou ('08) and Meeker ('09). Each took the same stride, and the three worked like a machine until the last lap. Then the supreme effort came, and Daniels came out victor, with Cortelyou second and Meeker third. The stars of the day were Hupp and Padilla. Hupp succeeded in making 18 points and Padilla 16 points.

A great deal of praise should be given to the committee in charge of the Field Day, as never a hitch occurred, and all the time something was coming off. The students should be thanked very much for keeping off the field, as it helped to run the events off quicker and did not block the view of the others.

THE S. F. L. FIELD-DAY.

Saturday, September 28, proved to be a delightful day for a field meet, just right from the standpoint of spectator and of competitor. The old time rivals were once more brought together with the old spirit showing itself as strong as ever. Lowell was there with her team and her rooting section, but neither could come up to the wearers of the black and gold. A new team and color were very noticeable in this meet and will doubtless be heard from in time to come, but Lick need have no fear, they hold the attitude of friend, not foe, these wearers of the winged C.

The fight began when Hirschfelt crossed the tape in the fifty yard dash, showing that he is still to be depended upon, when Lick needs the points. In this race Tucker showed that he will one day take the lead and make a good account of himself. In the 880 yard run Padilla showed his old time form by pulling ahead of Meyer of Lowell as they entered the stretch and winning by ten yards. Again he showed his worth by passing Meyer at the tape in the 440 yard dash. This was one of the exciting events of the day.

The two mile was a long drawn out test of endurance, Meeker plugging on to third place and Daniels finishing fourth with a wonderful burst of speed.

Hupp came second to Read of Lowell in the hundred yard dash during an interval in the high jumps and then went back and finished second to Bressi at five feet seven and a quarter inches, then with a steady stride which brought him victory, he took first place in the 220 yard hurdles. A fair example for a captain to set his team, is it not?

Next came Little with the mile, which he took quite handily from a large field of runners, demonstrating that he can be depended upon when needed.

The broad-jump went to Holt, who proved that he will soon be an item to be considered as time goes on in the track world. Keep up the good work, Holt, "Lick" will appreciate what you do for her.

Graff and Mitchell netted several points in the weights, as did also Wynne who secured several fourth places in various events. You know if there is anything in a name there is hope for you, Wynne. Every little bit helps, so keep at it.

Last, but not least, came the feature of the day, the relay. Baxter led off with Cogswell a close second. Tucker increased the lead a little in the second lap while Noyse and Graff held it throughout the third and fourth laps. Then came the fifth lap, in which Caldwell of Cogswell passed Holt on whom the previous events of the day had left their mark. In the last lap Hupp put forth a terrific burst of speed, but the distance was too great and the winged C crossed the tape a few feet in the lead. Where was Lowell? Far to the rear, her runners were shaking the cinders and dust, kicked up by Lick and Cogswell, from their eyes and hair.

As the sun sank behind the Golden Gate the jolly rooters found themselves saying softly—Lick 56, Lowell 44—and still they say that the wearers of the black and gold have seen their day; so strange, isn't it?

BERKELEY vs. LICK.

At last we have found a coach and have played a game. The coach has proved himself a very agreeable surprise. The game was very satisfactory, considering the style of play used by Lick. Mr. Middleton had been with the boys about a week when they played the game. With his faculty for getting one thing right before going further, he certainly worked wonders. The team went into the game with the old Lick spirit, and for what they lacked in weight and strength they made up for in speed.

The game was practically the old against the new. Lick used nothing but bucks and end-runs for her gains, with a kick now and then; Berkeley used every play known to the new game, including the celebrated forward pass. It was the inability to cope with this pass that gave Berkeley her five points. This pass will no longer menace the success of the team, for much attention will be given to it from now on.

The team that played was composed of: Center, Philips; guards, Michel and Clyde; tackles, Mitchel (captain) and Boxton; ends, Black and Newton; quarter back, Kennedy; half backs, Rodgers and Holman; full back, Graff. There were a number of good men on the side lines who will very likely be given a chance in the

next game, which will be played in the near future.

Baskethall

The basketball outlook is brighter than it has been for several seasons. The manager and captain of the team feel confident that with consistent work we shall be able to turn out a team that in every respect will uphold the honor of Lick. Several of the old players have returned, and the new ones are showing up remarkably well. Of course, at first there are many little inconveniences which must be put up with, such as playing without the use of a floor and lack of practice games; but these are being bettered rapidly.

Get out and try for the team. If you don't make it, take the crowd to the game and yell for the fellows who did. Then try again next season. Keep helping, and get enthusiastic over it.

We have a team that is a good match for Wilmerding, to which is conceded one of the fastest teams in the league this year. With proper support the team will win this season, while with poor support it will lose.

So, fellows, help the basketball team. Go out, get in line, and boost! Lick spirit will win! Get in line!

Swimming.

Things look very prosperous for Lowell this year—from a pessimistic viewpoint. Of course, we are well aware that the name of Laine goes for a great deal in swimming circles, but other things enter into the forecast. Bromley will not be able to compete this year, and thus Lick will have a very fair chance. With such men as Ditterle, Padilla, Morser and Kuchel, of last year's team, and the new material which is in evidence this year,

Lick will make it very interesting for her competitors about the bay.

Tennis

There seems to be a good deal of interest shown in this sport by the lower classmen, from the number who have signed up for the try-out this year. A little extra effort on the part of the upper class men would be appreciated.

Girls' Athletics

Basketball.

Miss Clare Hodges, our new basketball captain, has thus far fulfilled all our anticipations of what the ideal captain should do.

The girls practice twice a week, and already several fast and snappy practice games have been played.

The Freshmen have shown great enthusiasm, so that with all the new material and the girls left from last year's term we should be able to pick a strong school team.

Boating.

The Boating Club which was started at Lick last year is still one of the athletic organizations of the school, but owing to the plans being formed for a pastime club it had been neglected.

The Pastime Club.

The girls have organized an association which will be known hereafter as the Pastime Club. It has been formed for the purpose of reorganizing the sports among the Lick girls, and it will take charge of all the athletics to be indulged in by the girls.

Swimming.

Swimming seems to the most popular sport among the girls this year. Under the able leadership of Miss Otto the girls have been to the baths for the last two Saturdays, and they intend going every Saturday morning while the good weather lasts.



GEOMETRY (?)

Given—A pretty girl and a homely girl.

To Prove—That a homely girl is nicer than a pretty girl.

Proof—(1) Nothing is nicer than a pretty girl (by experience). (2) A homely girl is nicer than nothing (assumption). Therefore a homely girl is nicer than a pretty girl.

Visitor to City Hall—When will the Mayor be at leisure?

Attendant—Not for five years.

"THAT CUP CASE."

A head line for a continued story.

There is an old lady sells pies,
The whole of Lick school she supplies,
They eat 'em for lunch
And not one in the bunch
Has had fits, gets sick or dies.
G. D. KENNEDY, '08,

PICTURESQUE PHRASES OF POPU-LAR PEOPLE.

Miss Otto—Oh, you're dandies.
Dutch Barber—Chr-i-i-s-s-tmas.

Mr. Tibbits—Attention in the r-o-o-m.

Brick—Aw. get some ginger!

Miss Southwick—Take that out in the hall if you can't get over it here.

Mr. Mathis—Hold it on the anvil in this manner.

Barney—Say, you, grab a shovel and rush some dirt over here.

Mr. Drew (dead silence)—Gymnastics. Hemlock—"Make it sharp, fellows."

NAPOLEONIC.

Up in the window casement
Sat a boy with a pail of water;
Down below, near the basement,
Stood Mr. Houston's youngest daughter.

Just then the Professor came, Says "What are you trying to do?" "Merely playing a little game Known as Water Lou."

IN ENGLISH CLASS.

(Graff sleeping on seat mate's shoulder.)

Teacher—"When you get tired holding the baby, lay him down."



Evolutions of a Freshman

TWELVE LITTLE FRESHMEN.

Twelve little Freshmen to High School driven.

Lessons get difficult, then there's eleven; Eleven little Freshmen for football men, 'Long comes a tackle, then there are ten. Ten little Freshmen in High School shine, One a practical joker, then there are nine. Nine little Freshmen by street cars made late.

Come and find door locked, then there are eight.

Eight little Freshmen report cards given, One's marked with crosses, then there are seven.

Seven little Freshmen in a rough-house mix.

One gets battered, then there are six. Six little Freshmen very much alive. One steals a poster, then there are five. Five little Freshmen march to the store, One gets too much pie, then there are four. Four little Freshmen, as lively as can be, Exit to the office, then there are three.

Three little Freshmen, looking for something to do,

One strays into a Senior meeting, then there are two.

Two little Freshmen in for fun,

Too much rough house, then there is one.
One little Freshman when final exes come,
Gets through by a scratch—then there
are none.

—Clare Hodges, '09.

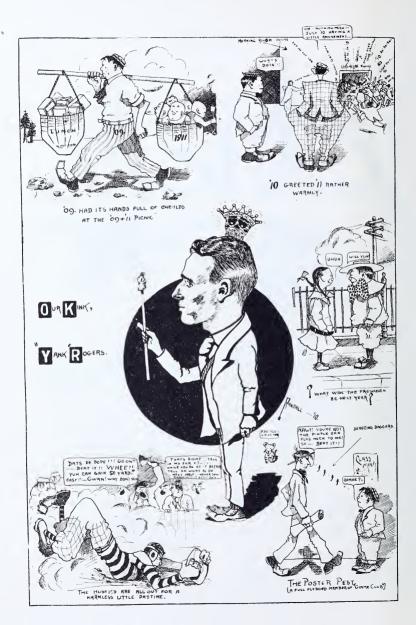
THINGS WE WOULD LIKE TO KNOW.

When Dodo is going to spout fire.

When that cup case is coming.

Why Leslie goes to the Ferry by way of Fillmore street lately.

Who started the kindergarten near Sixteenth and Utah.



Personal Interviews With Celebrities In Our Sideshow

1-Leigh Rodgers, President of the Student Body.

Fore Word.

The purpose of this interview is to give the Freshman a little idea of His Royal Highness, "Kink Leigh I," of C. S. M. A. A picture of His Royal Highness appears on the opposite page.

We held him up on the football field one afternoon—and hustled him off to a corner. He looked so kinkly then—so tall and thin, a visor on his brow and robes of brown clothing his manly figure. Our picture hardly does him justice.

"Who is he? Who is this great man?" vou may ask if you are a Freshman.

Well, just take this issue of The Tiger with you to the next rally, open it to the page on which our illustration appears and look up on the rostrum till you find its double.

We met him on the football field, as we said before, and led him to a corner. Here he sat down and tried to mend the holes in his football socks by tying the loose ends together.

"Kink," we said respectfully. "our humble lowness has come to interview your Lanky Highness for the purpose of defaming your moral character for the edification of the readers of that illustrious sheet. The Tiger."

He looked astounded.

"What do you take me for? What do you expect me to say?" he asked gloomily, "and what do those big words mean?"

"Webster's Dictionary reposeth in the English room," we replied; "make a spiel on the football team."

He smiled.

"Well, you know," he said modestly,

"I'm going to see that we win all the games. The fellows are out practicing now, you see; we have the best team on the coast. We have a fine coach (on the side); he used to be a hack-driver, so he ought to be onto his job."

"Yes," we remarked, "what do you think of the Freshman Class?"

His brow clouded.

"Say," he whispered confidentially, "do you know, I've ordered fifty cradles to be made—do you think that will hold them all? They're to be extra large, built for two."

"Let us hope so," he replied; "but they will always be useful."

"Yes, I think so," he said. "You see, in a year or two they will need them along the side line in football, so that the poor boys can rest up. And, if we buy them now it will save so much expense to the Student Body of that time—they will have to be buying kilts, you know, for the team—our suits will be too big."

"Aren't you afraid some of them will fall down the post-holes you have dug here where the rope is to go?"

"Yes, it's risky," he acknowledged,
"but you see Smith has charge of that, so
he'd have to dig them out. What I'm
afraid of, though, is that when they get
to pecking through the banisters up on
the top floor at the rallies some of them
will fall down."

"Why don't you run a wire along in back and tie them to it, so that they can't lose their balance?"

"That's a good suggestion," he said, brightening. "Do you think Mr. Merrill would mind if I put a shingle nail in the wall to tie it to?" "Might ask him," we volunteered. "How are the Student Body dues coming through?"

"Pretty fair," he answered. "But that reminds me; while you're about it, make a statement that 'if everybody don't come through with their Student Body dues this quarter that—that—er, well, I won't let 'em pay at all,' you know yourself it's a privilege to be able to pay up, and we must treat it as such."

"Speaking of the treasury, how does the football team come out?"

"Well, now, I'll tell you—mind you, this is not for publication. We intend to spend all we can get out of the Board of Control, but I'm afraid they're wise to the game.

"I'm going to strike 'em for a crown and leopard skin and a scepter, too, you know. The Royal Dignity must be preserved at all costs. The crown 'Ernie' had is rather battered and a little small for me. Don't YOU think I ought to have a new one?"

"You bet," we answered. "But be good now, you're wanted on the team and we've got to go home and write this up. Ta, ta!"

"Good-bye," he said, kind of sadly, "and don't do me up too hard." And he lumbered off.

And so we've tried to let him down 2asy.

Done into shape by WILLARD BEATTY & MONRELL RANDALL.

WANT ADS.

Wanted—By Freshman President: One hundred baby carriages, small size; about half a dozen football players, by Brick; muzzle to fit foundries, boiler works, cornice works, etc., by Student Body.

Wanted—By G. L. P.: A folding mirror.

THE COMMUTER'S RIDE.

Up from the ferry at break of day, Bringing to Market street fresh dismay, A street car appeared with a black and white sign

Which said it ran on the Valencia street line;

The terrible grumble, rumble and roar Told us the Lick boys were on once more, And Lick only twenty blocks away.

And louder and louder those shouts of war

Thundered thro' the open car door;
And louder yet into Utah rolled
The roar of this youth uncontrolled,
Making the blood of the Principal cold
As he thought of his name in that fierce
fray,

And Lick only one block away.

But there is a road from this part of town, A good, broad highway leading down, And there through the flush of the morning light

A crowd composed of half of Lick's might

Was seen to pass with an eagle's flight,
As if they knew the terrible need,
They walked away with utmost speed.
Bills rose and fell, but their hearts were
not gay.

With home fifteen miles away.

No more the crowd comes day by day Across San Francisco's greatest bay; Now books and satchels are left behind, No more do they waste their precious time:

No more do their faces beam with elation,

Yet it's still the trans-bay delegation, But Lick is twenty years away.

-Richard Jones, '09.

When is a teacher not a teacher? When it's a Plum(b).

When is a girl not a girl? When it's a Bridge.

When is a boy not a boy? When it's a Wolf(f).

ANSWERS TO CORRESPONDENTS.

Richardson—Your letter will be turned over to the Beauty Department.

Miss L. H.—The Scrub President could probably locate the party that you are looking for.

Ziph—Your letter was not translated in time for this number.

Four years are really not so long to dwell In this school we love so well;

For in one day so short and small We see summer, winter, spring and many a fall.



Suggestion for '08 Classpin

NOT AT LICK.

- "I am going in for athletics, George."
- "Don't say so, old chappie."
 "Bliged to; doctor's orders."
- "Going to try Indian clubs?"
- "No; I fancy I shall twy rolling my own cigarettes."—Ex.

Teacher (to small Freshman sprawling in aisle)—Take that gum out of your mouth and put your feet in.



THE FRESHIE BOY.

Blessings on thee, Freshie boy, Striped hat-band and corduroy; With thy baggy pantaloons And merry-whistled college tunes. You are happy, careless, free-Not a study troubles thee. Oh, for Freshman's painless fun And hopefulness when exes come; Play that risks the teachers' rules, Knowledge never learned of schools Of the way to put on skates. Of the morn and evening rates, How to eatch a moving car When it's off a block or more. How to 'scape the Senior's wrath And the way to bluff in math; And, if you should ever flunk, Just try harder and show your spunk; And then some time, with proper grace, You can take the Senior's place. And look back upon the years

Of Freshie joys and Freshie fears; From my heart I wish thee joy— Here's to thee, thou Freshie boy.

Cheerily, then, my little man,
Live and laugh as Freshmen can;
Though the history "ex" be tough,
Do it well and do not bluff,
For all too soon those days are o'er
And you will be a Sophomore,
Made to tread the paths of toil—
And Oh! it is a rocky soil.
So try now and not be found
Skating on forbidden ground;
Happy if you go not flat
In exes, rinks and all of that.
Oh! that thou could'st know thy joy
Ere it passes, Freshie boy.

-C. Hodges, '09,

WISE.

Teacher—What is a rosebud? Fabian—A rose in a trance.

STATIONERY

OFFICE SUPPLIES

International Stationery and Supply Co. CONNELLY & MILLER, Props.

3011 Sixteenth Street (25 steps west of Mission St.)

DRAWING MATERIALS

SCHOOL SUPPLIES

A. G. Spalding & Bros.

134 GEARY STREET

SAN FRANCISCO, CAL.

Largest Manufacturers of Athletic Goods in the World

There is But One Standard

Look for Grade Mark.



It Indicates Talue

We carry everything of the Athlete. Football Uniforms. Trunk Supplies, Etc., Etc.

Send us your name for our new Fall and Winter catalogue, showing all that is new in sports.

A. G. SPALDING & BROS., 134 Geary Street, San Francisco, Cal.

Forderer Cornice Works

INCORPORATED

Architectural Sheet Metal Work Fire-Proof Window Frames and Sashes Cornices, Skylights, Roofing

16th St. and Potrero Avenue Two Blocks South from Junction 10th and Brannan Streets.

Phone MARKET 124

Hofer, Hanjes & Hagerman

340 Fell Street

San Francisco Agents
CASE GOODS
and SYPHONS



P. S. Marshall & Co.

Distributors in bulk

74 Merchant St. San Francisco

Delivered in 1-2 gallon, I gallon and 5 gallon bottles.

GOOD FOR YOU! ALHAMBRA NATURAL MINERAL WATER GINGER ALE

Springs near Martinez, Cal.

Main Office, Martinez, Cal.

Sullivan's Dry Goods Store

1414 Haight St.

Near Masonic Ave.

Telephone Franklin 2983

FRED H. KOCH

Dealer in

BUILDERS'

HARDWARE

Tools, Paints, Oils, Glass, Cooking Utensils, Stoves, Etc.

2203 Polk Street 1504-1507 Vallejo Street

VAL SCHMIDT'S PHARMACY

THE neatest and most complete Drug Store in San Francisco announces the return to its former location, POLK AND JACKSON STS., where the old time high standard of goods and care in compounding prescriptions will be maintained.

All goods guaranteed under the U. S. Pure Food and Drug Law

PUBLISHERS' NOTICE.

On and after the 37th of Septober The Tiger will issue, for the benefit of its Freshmen readers, a Kindergarten Supplement in words of one syllable.

- "Whistle, daughter, whistle, and you shall have a cow;"
- "I can not whistle, mother, I have forgotten how."
- "Whistle, daughter, whistle, and you shall have a sheep:"

- "I can not whistle, mother, I've fallen fast asleep."
- "Whistle, daughter, whistle, and you shall have a man;"
- "Whew! whew! whew! whew! I really think I can."

Johnny—Did God make us both, Auntie?

Auntie—Yes, Johnny.

Johnny—He is making lots of modern improvements lately, isn't he, Auntie?

Savings Department

ΟF

THE Anglo-Californian Bank

-LIMITED -

Mission Branch, Mission and 16th Street, San Francisco, California We desire to announce that we have established a SAVINGS DEPARTMENT in conjunction with our commercial banking business and are receiving savings accounts which draw interest at the usual rate.

We are now in our new home, the "Anglo" building, N. W. Corner 16th and Mission Sts., and have a modern and well appointed banking house with absolutely fire and earth-quake proof

SAFE DEPOSIT VAULTS

THE ANGLO-CALIFORNIAN BANK, LTD.

Head Office--LONDON, ENGLAND, Main Office--PINE & SANSOME STREETS.

IGN. STEINHART / Managers.

W. K. COLE, Branch Manager. ALWAYS SOMETHING

NEW

In Ribbons, Veilings, Belts, Neckwear, Leather Goods, Handkerchiefs, Gloves, Girls' and Boys' Sweaters and Underwear.

Full line of fancy goods material and embroidery silk. Large assortment of goods for the holidays. Also big stock of Teddy Bears, Dolls and Toys. Give us a call, our prices are the lowest.

SHOENHOLZ & ELSBACK 2011-2013 Fillmore Street

Bet. California and Pine

He kissed her on the cheek, It seemed a harmless frolic; Now he's been sick a week,

They say it's painter's colic.

Dodo—Do you know how it feels to be kicked by a mule?

Dutch—No, and I don't want you to show me

Miss B.—No excuse will be accepted for not bringing your home work in except sudden death on your part.

We Cater to Collegians

Union Sanitary Renovatory

CLOTHES CLEANED, DYED and REPAIRED

FEATHER WORK OUR SPECIALTY

Our French Curling Unsurpassed

3272 Twenty-second Street

ED. LEVY, Prop. SAN FRANCISCO

Just a little Freshman,

Just a little pie,

Just a little funeral slowly passing by;

Just a little tombstone,

Just a line which saith,

Just above the martyr's grave: "He died a pie-ous death."

Dill—What makes that girl look so excited?

Pickel—She has just finished the stirring part of the cook book.

THE CHOICEST GROCERIES

OUR stock of groceries for quality and assortment is not to be surpassed. Our rapidly growing business is the best evidence of this.

BROCK & CO.

3325 Sacramento Street

MRS. B. DETTLING

School Supplies, Stationery, Bakery

Lunch Room, Fine Candies

Drawing Materials

386 Utah Street - San Francisco

Established in the Western Addition 1876

H. Londoner & Co.

Watchmakers and Jewelers

3333 Sacramento St.

Near Presidio Ave.

... Dealers in...

Diamonds, Watches, Clocks and Jewelry

EXPERTS IN REPAIRING

FINE WATCHES, FRENCH CLOCKS, CHIMES, HALL CLOCKS, AND ALL COMPLICATED WORK A SPECIALTY

All work guaranteed for one year



CONTRA COSTA STANDARD

Has the largest circulation of any paper published in Contra Costa County, Represents all the interests of the leading farming, fruit growing and manufacturing center of California.

PRODUCES BEST RESULTS FOR ADVERTISERS WRITE FOR RATES

MARTINEZ, CALIF.

The Rosarie

FLORISTS

DECORATORS

LAWRENCE LALANNE. Prop'r.

3319 Sacramento St., near Presidio Ave.

and Cor. Sacramento and Devisadero Sts. - Phone West 633 -

Floral Designs Are Our Specialty Cut Flowers and Plants of All Kinds

A Vignette.

His Majesty, the sun, was slowly rising, and the immense disc-like ball of fire lighted up the eastern horizon, casting its red reflection on the water and making it sparkle as though rubies and diamonds and other jewels were scattered on its surface.

He rose slowly and shot his warm beams on the flowers and blossoms, and, as they

lifted up their weeping heads, kissed their tears away, and then, still slowly moving, he arose higher and higher, and awakened the birds, who then busily proceeded on their day's work. Then his rays were shot through the windows and on the meadows and fields, and the world was awake to another glorious day.

—Rose Caccia. '09.

Thighing Рното Studio

1930 FILLMORE STREET SAN FRANCISCO

SWETT SCALIFORNIA GRAPE JUICE

"An Unfermented Vintage"

CABERNET (red)

) Laxative MALAGA (white)

RESTORATIVE

PRESERVED BY HEAT STERILIZATION WITHOUT THE USE OF ANTISEPTICS

Price per case of 12 quarts, \$5 Twenty-four pints, \$6

FROM THE

Hill-Girt Vineyard Son Son MARTINEZ, CALIFORNIA

For Sale at Leading Grocers and Druggists

GENERAL AGENTS:

SUYDAM BROS. & ROGERS
16 SPEAR STREET, SAN FRANCISCO

For reference as to purity apply to the State University Agricultural Department.

INSIST UPON HAVING THIS "QUALITY MARK" ON EVERY BOX OF APPLES YOU BUY

"THEY COST NO More and Are AS GOOD AS THE Best."



"THEY COST NO MOREAND ARE AS GOOD AS THE BEST."

UPHAM BROS.

SHIPPERS

MARTINEZ, CAL. PHONE, SUBURBAN 37

Sullivan's Shoes

FOR EVERYBODY

1470 Market Street

North Side, Opposite 8th St.



lines of Imported and Domestic Woolens are now ready for inspection.

The variety is more complete than ever and there are many exclusive pat-

The prices on these goods are very moderate, namely—Suits from \$20.00 to 00. Trousers from \$5.50, and Overcoats from \$20.00 to \$50.00.

THE LONDON TAILOR

1432 Fillmore Street 731 Van Ness Avenue

958 Broadway, OAKLAND

Mission Market

2973-75-77 16th ST.

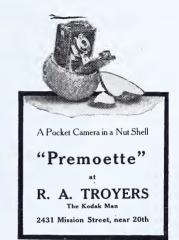
The Most Convenient Market in the Mission

DELICATESSEN AND DAIRY
PRODUCE

FRUIT, VEGETABLES, FISH AND POULTRY

Choicest Stall Fed Meats of all kinds BUTTER, EGGS & CREAM

Butter Churned Daily on Premises.



C.H.Brown & Co.

16th and Mission Streets

"No Clothing Fits Like Ours"

Young Men's and Boys' Clothing, Furnishings and Hats

GIVE US A CALL

16th AND MISSION STREETS

"Fall Attire"

FOR

YOUNG MEN BOYS AND CHILDREN

FASHIONABLE GARMENTS MADE BY FAMOUS MAKERS

C. J. HEESEMAN

1107 to 1117 Washington St.
OAKLAND, - - CAL

Do you want to know anything about MACHINERY

IF SO, WRITE US. DATA CHEERFULLY FURNISHED

MACHINE TOOLS BOILERS AND ENGINES

HOISTS AND

MINING MACHINERY SAW MILL AND WOOD-WORKING MACHINERY

MOULDERS

LATHES
PLANERS
DRILL PRESSES
BOLT CUTTERS
PIPE MACHINES
MILLING
MACHINES
PUNCHES
SHEARS
BENDING ROLLS
PNEUMATIC
TOOLS
DRILL
GRINDERS



PLANERS
FLOORERS
SHAPERS
BAND SAWS
BORING
MACHINES
SWING SAWS
RESAWS
RIP SAWS
EDGERS
MORTISERS
TENONERS

JOHNSON BROS., Inc.

WHOLESALE GROCERS

IMPORTERS AND EXPORTERS OF FANCY GROCERIES

2187 FILLMORE ST.

Near Sacramento
PHONE WEST 964





Miss L. (in the cookery)—Miss Robinson, the coffee's boiling over; shall I stop it?

Miss R. (to one of the cooking girls)— Miss L., you can not make coffee without your cap.

WISE.

Freshman—Where do those quiet-looking, long-faced fellows that are marching off the car in pairs come from?

Wise Soph.—Oh, that's the "Alameda County Delegation."

Cunningham, Curtiss & Welch

Stationers, Booksellers, Paper Dealers

565 to 571 Market St., San Francisco, Cal.

JOHN FINN, President

ROBERT B. FINN, Secretary

JOHN FINN METAL WORKS

San Francisco

BABBITT METALS SOLDER and GALVANIZING N. W. CORNER SECOND and HARRISON STS.

White Brothers

Hardwood Lumber

Importers and dealers in Oak Ship Plank and Timber, Locust Treenails and Wedges, Mahogany, Primeyera, Teak, Walnut, Butternut, Cherry, Sycamore, Ash, Spanish Cedar, Maple, Gum, Quarter Sawed Oak, Veneers and Dowels, Special sizes furnished to order on short notice.

Cor. Spear and Howard Streets

Tel. Temp. 253

San Francisco

Are You Satisfied With Your Grocer?

Dannemark Bros. ..GROCERS..

798 HAIGHT ST., Cor. Scott

THE REST GOODS THE REST SERVICE

Are You Satisfied?

Commercial Viewing a Specialty

Art and Picture Framing



PHOTO SUPPLIES

Printing Mounting Developing Enlargements

2460 Mission St., nr. 21st SAN FRANCISCO

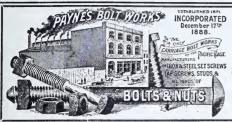
Phone Market 231

Olympic Arms Co. Ammunition

Sporting Goods, Athletic Goods

Fishing Tackle Special Loads

555 Van Ness (Nr. Golden Gate) San Francisco



G. L. PAYNE, President

133-143 HOWARD ST. San Francisco, California

TELEPHONE TEMPORARY 272

"IF JT'S GOOD WE HAVE IT"

Mission Delicacy

JAENECKI & CO.

3250 Twenty-second Street

Phone Market 4930

FOOT BALL OUTFITTERS

Varsity Coats and Sweaters, Jerseys, Supporters and Running Suits, durable and moderately priced::



MILLS Grove and Laguna STORE Van Ness and Calif.

We Make

Pure Paints
Pure Colors

For Houses, Ships and Barns

We Refine

Lubricating Oils and Greases

For Steam Plants

We Sell

Fine Varnishes Good Brushes

R. NASON & CO.

Potrero Ave. and 15th Street



Photo Studio

2308 Mission Street Near Nineteenth Large Picture Free With Each Order

JOSHES.

Teacher (in astronomy)—Now, if you don't understand this I will give you an illustration. This chair represents the sun, my hand is the moon, I am Venus.

Willie—Papa, are you growing yet?
Papa—No, Willie, what makes you think so?

Willie—Because the top of your head is coming through your hair.

"PATRONIZE HOME INDUSTY"

Your California Insurance Co. paid \$1,832,000 in losses in the San Francisco Conflagration at the rate of 100 cents on the dollar and has established a reputation for honorable dealing, in proportion to its assets, unequaled in the history of fire insurance.

HOME OFFICE, - - No. 550 SACRAMENTO ST. San Francisco, Cal.

... KODAKS...

THE DAYLIGHT SYSTEM

Let us make you Enlargements from those vacation pictures. Excellent Xmas presents

J. F. KINMAN

2204 FILLMORE STREET

Phone West 2644

Phone Market 1375

MAGGIO & DONDERO

Formerly at 519-521 Merchant Street

Wholesale and Retail Dealers in Fresh, Smoked and Salt Fish

ALL KINDS OF SHELL FISH

15 and 16 NEW SAN FRANCISCO MARKET

Telephone Park 114

Ashbury Heights MARKET

Held & Besthorn, Props.

BEEF
VEAL
MUTTON
PORK, Etc.

Special attention paid to Family Trade

1589 HAIGHT ST.,

Near Clayton

H. HARTJE

DEALER IN

GROCERIES, PROVISIONS WOOD AND COAL HAY AND GRAIN

Cor. 16th and Potrero Ave.

SAN FRANCISCO

TELEPHONE SPECIAL 1116

S. F. PIONEER VARNISH WORKS

E. L. HUETER, Proprietor

Fine Coach, Railway & Furniture VARNISHES

Architectural Wood Finishes

FACTORY:

24TH AND KANSAS

OFFICE AND SALESROOM:

1814 MARKET STREET

SAN FRANCISCO, CAL.

GEO. H. KAHN

OPTICIAN

1232 Van Ness Avenue Between Sutter and Post Streets

Headquarters for

KODAKS
PHOTO SUPPLIES
WATERMAN'S
FOUNTAIN PENS

The Fitting of the Eyes For Glasses My Specialty

FOR OVER 25 YEARS

S. F. COMPRESSED AIR CLEANING CO.

Carpets cleaned on the floor without removal

WAGON SERVICE

WORKS: 16TH STREET AND SAN BRUNO AVENUE

Estimates made

Telephone Market 2672

Books

Candies

Stationery

Lunches

Cornucopias

Coffee

--AT--

Miss M. Donohue's ENLARGED STORE

Just Around the Corner

355 POTRERO AVENUE

NEAR 16th STREET

"The Hastings"

FALL STYLES

Suits, Overcoats, Shoes, Hats

Are Now Ready

Our Young Men's Tuxedos are just correct in every detail

The Hastings Clothing Co.

VAN NESS AVE. at PINE

HAVE YOU SEEN

THE ROAD OF A Thousand Wonders?

- It is a beautiful book of 75 pages, showing in over 125 four color illustrations, the wonders of the Pacific Coast scenery.
- The best Christmas gift for 1907 is a year's subscription to Sunset Magazine, to include free a copy of this beautiful book.

Send \$1.50 to

Sunset Magazine

948 Flood Building

San Francisco :: :: California